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ABSTRACT

The manual describes a curriculum in orientation and mobility developed as part of the Adjustment to Blindness Program of the Greater Pittsburgh Guild for the Blind. Objectives and learning experiences are listed for the following 10 units: use of sighted guides, basic indoor orientation and cane skills, residential sidewalk travel, residential/suburban non-sidewalk travel, rural non-sidewalk travel, light controlled intersections, business area travel, business establishment travel, metropolitan travel, and commercial non-sidewalk travel. (CL)

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ED157259

professional series 4

ORIENTATION AND MOBILITY

A Curriculum Guide

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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GREATER PITTSBURGH GUILD FOR THE BLIND

EC 111 171

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FOREWORD

Orientation and Mobility

Curriculum development by the orientation and mobility staff is an on-going process. Under the exceptional leadership of James A. Kimbrough, Chairman, continuous analysis is made of the teaching-learning process, scope and sequence of the curriculum and differentiation of instruction. Periodically, teams of orientation and mobility staff are responsible for reviewing and/or revising objectives, means, and differentiation of instruction for a given unit of work. These analyses and revisions are based upon feedback from Trainees, fellow orientation and mobility specialists, faculty in related courses and research. A writing and editing team consolidates any changes into the Curriculum Guide which is then again scrutinized by the entire orientation and mobility faculty. Critical analyses, creative thinking and testing have taken place over 14 years. James A. Kimbrough and Kathleen M. Huebner served as the technical-editorial team for this current Guide.

The expository style was chosen for the current Guide to aid in readability. The Guide is offered as the instructional guide which is used to facilitate the systematic-developmental teaching strategy. The objectives serve as guidelines for selecting content, learning experiences and evaluations. The units of work are designed so that the content and the suggested learning experiences provide a pattern of organization that will facilitate the systematic expanding development of concepts and skills as well as encourage utilization of the many thinking processes. This organization represents the deliberate intent to have the Trainee become a self-realizing, independent person.

Roseann B. Reid, Ed.D.
Educational Consultant

ACKNOWLEDGMENTS

In compiling and publishing a curriculum guide such as this, we would be greatly remiss if we did not express extreme gratitude and indebtedness to the more than 1000 blind men and women Trainees who have participated in Personal Adjustment Training at The Greater Pittsburgh Guild for the Blind. These individuals of various backgrounds and ages helped us to understand and analyze the effects of visual deprivation, and how this deprevation could be overcome. Over the years, our interaction with these individuals helped us to establish a firm and positive philosophy concerning the abilities of blind persons, and this Guide would not have been possible without their cooperation. We learned a great deal from them.

We further wish to express extreme gratitude to Roseann B. Reid, Ed.D., our Educational Consultant. It was obvious to us that an endeavor such as this would require the utmost in creativity, sensitivity, and technical competence, and we are deeply indebted to this very fine individual for providing us with her professional expertise. Along with her, we must especially acknowledge L. Leon Reid, Ph.D., Director, who has provided dynamic leadership over the years, and who contributed his professional talents in the compilation of this Guide. Our thanks also go to Patricia L. Larkin, B.A., editor of the *Guild Approach* (our newspaper) for her corrections and suggestions.

We would also like to take this opportunity to recognize those orientation and mobility specialists who have given their services to The Greater Pittsburgh Guild for the Blind in the past and provided significant learning experiences to the Trainees enrolled. These individuals include: Mary Eleanor Boyle, M.Ed.; Charles Brown, M.Ed., William R. Curtis, M.Ed.; Mary T. Dolan, M.Ed.; Andrew Frazier, M.A.; Robert K. Hughes, M.A.; Robert E. Kalchthaler, M.Ed.; Michael D. Laus, M.Ed.; Paul J. Lewis, M.Ed.; Robert E. Long, Ed.D.; Joy A. Mallard, M.Ed.; Michael B. Nicolella, B.S.; Rene Paquin, M.Ed.; Martha Ball Rosemeyer, M.Ed.; Linda Vance, M.Ed.; Lois Waltman, M.Ed.; Ted Williamson, M.Ed.; and Donald Yannacci, M.Ed.

J.A.K.
K.M.H.

We thank the following Trainees pictured in this Curriculum Guide: Thomas Sheppard, Howard Mooney, Ann Hughes, Tim Jackson, Cindy Kudes, Father Anthony Marion, Wanda Adams, Callie Williams, Paul Hazel and Robert Nale.

Drawings by Robert D. Ley, Mobility Specialist.

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UNIT I: USE OF SIGHTED GUIDES

Objective A.1.0. Page 15

The Trainee, when using a sighted guide, will maintain himself in a position to receive information through the guide's body movements.

Objective B.1.0. Page 17

The Trainee will interpret and use verbal and non-verbal information from his guide for safe, efficient, and poised travel.

Objective C.1.0. Page 22

The Trainee will assume responsibility for ensuring his own safety and efficiency while using sighted guides.

UNIT II: BASIC INDOOR ORIENTATION AND CANE SKILLS

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The Trainee will safely and systematically orient himself and travel within unfamiliar rooms without a travel device.

Objective B.1.0. Page 27
The Trainee will safely and independently travel within a familiar indoor area without a travel device.

Objective C.1.0. Page 29
The Trainee will travel safely and independently in indoor areas while effectively using the diagonal or touch cane techniques.

UNIT III: RESIDENTIAL SIDEWALK TRAVEL

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The Trainee will travel safely and independently as well as maintain his orientation within residential blocks.

Objective B.1.0. Page 40
The Trainee will safely and independently cross at stop-sign controlled intersections in residential areas.

Objective C.1.0. Page 44
The Trainee will safely and independently travel within residential areas having stop-sign controlled intersections.

UNIT IV: RESIDENTIAL/SUBURBAN NON-SIDEWALK TRAVEL

Objective A.1.0. Page 49
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Objective B.1.0. Page 51
The Trainee will safely and independently travel within residential/suburban non-sidewalk areas, having stop-sign controlled intersections.

UNIT V: RURAL NON-SIDEWALK TRAVEL

Objective A.1.0. Page 56
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Objective B.1.0. Page 59
The Trainee will travel safely and independently in woods and through fields while maintaining his orientation.

UNIT VI: LIGHT CONTROLLED INTERSECTIONS (Section 1)

Objective A.1.0. Page 64
The Trainee will cross safely and independently at light controlled intersections having light to moderate traffic and minimal pedestrian activity.

UNIT VI: LIGHT CONTROLLED INTERSECTIONS (Section 2)

Objective A.1.0. Page 70
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Objective C.1.0. Page 92
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The Trainee will integrate learned techniques and skills while safely and independently traveling within multi-level shopping malls.

Objective E.1.0. Page 98
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The Trainee will analyze large volumes of vehicular traffic by sound and apply this skill to traveling on sidewalks and crossing streets in a metropolitan area.

Objective B.1.0. Page 105
The Trainee will analyze pedestrian movement and activity by sound and apply this skill to traveling on sidewalks and crossing streets in a metropolitan area.

Objective C.1.0. Page 109
The Trainee will assume the responsibility for his own safe and independent travel to, and participation in, activities or events within metropolitan areas.

UNIT X: COMMERCIAL NON-SIDEWALK TRAVEL

Objective A.1.0. Page 112
The Trainee, after prior orientation, will travel safely and independently along commercial highways, locate objectives, and maintain his orientation.

INTRODUCTION

The process by which one becomes oriented to, interacts with, and moves about within the environment is complex. It would indeed be a monumental task to isolate all components involved and arrange them into priorities. An individual with normal vision usually doesn't have to think about this process or analyze it in relation to how one must function within a given situation. The environment is discovered almost effortlessly and without help as one grows, and very early in life, this process is intact. When vision is lost or severely impaired, one must again go through the process of becoming oriented to, interacting with, and moving about within the environment. This cannot be learned without help.

The staff at The Greater Pittsburgh Guild for the Blind, through intensive treatment and education of over 1,000 blind persons, has concluded that in order for a visually handicapped individual to achieve maximal independence in mobility, training with a qualified instructor is mandatory. It is further recognized that the development of the ability to become oriented and mobile within the environment is a significant part of an individual's total rehabilitation program.

When a Trainee enters the Guild, an initial evaluation is conducted by the entire staff to determine the extent of functionality of the sensory modalities. This might, for some, include specialized neurological, otological, physiatric, and psychological techniques. From these evaluations a program is developed, which includes mobility, and the rehabilitation process begins.

Trainees who enter the Guild with residual vision are given additional, extensive evaluations by the orientation and mobility staff to determine the extent to which that vision can be used to ensure their safety while traveling. These evaluations are conducted both indoors and outdoors, and also during the day and night. (See Appendix.) The results of these evaluations enable the Trainee and instructor to plan a program with emphasis on vision training, non-vision training, or a combination of both. It has been our experience that many of those Trainees with vision who do not require a prescription cane for safety, must, however, achieve the major portion of the instructional objec-

tives within this Guide as they learn to use their vision more efficiently.

Some Trainees, when entering the Guild, demonstrate extreme experiential deprivation, and lack a functional understanding of environmental concepts that are essential for successful achievement in mobility. Those who demonstrate potential to acquire an understanding of the environment, and achieve high levels of independence, participate in a specially structured course entitled Mobility Concept Development. Instruction in this course continues until the Trainee is able to integrate his conceptual understanding into the experiences within this Curriculum Guide.

The Guide is intended for use by the expert orientation and mobility specialist who is thoroughly acquainted with the techniques of mobility as they relate to the total rehabilitation process. It is presented in such a way that a given unit of instruction contains clearly defined instructional objectives, combined with specific criteria by which a given Trainee's progress can be measured. Emphasis is on process and content, and provides for both vertical and horizontal development through integration of skills and concepts, not only in mobility, but also from related courses that are being taught. It is not a manual of teaching techniques.

Crucial to the development of orientation and mobility skill, is confidence in the use of the senses. It should be clearly understood that if an individual is to meet his total environment and act upon it with efficiency, he must be able to compile and correlate available sensory data into a meaningful interpretation. The effectiveness of any subsequent actions will be determined by how much he is aware of, how well he is able to correlate, and how accurately he is able to interpret the meaning of the sensory information. Therefore, as the reader analyzes the objectives and the criteria, it should be clearly understood that none of these could be achieved without the effective development of *all* sensory abilities, including residual vision. However, where indicated, we have attempted to select within each objective those sensory abilities that should be most greatly emphasized for successful completion or learning of a given task.

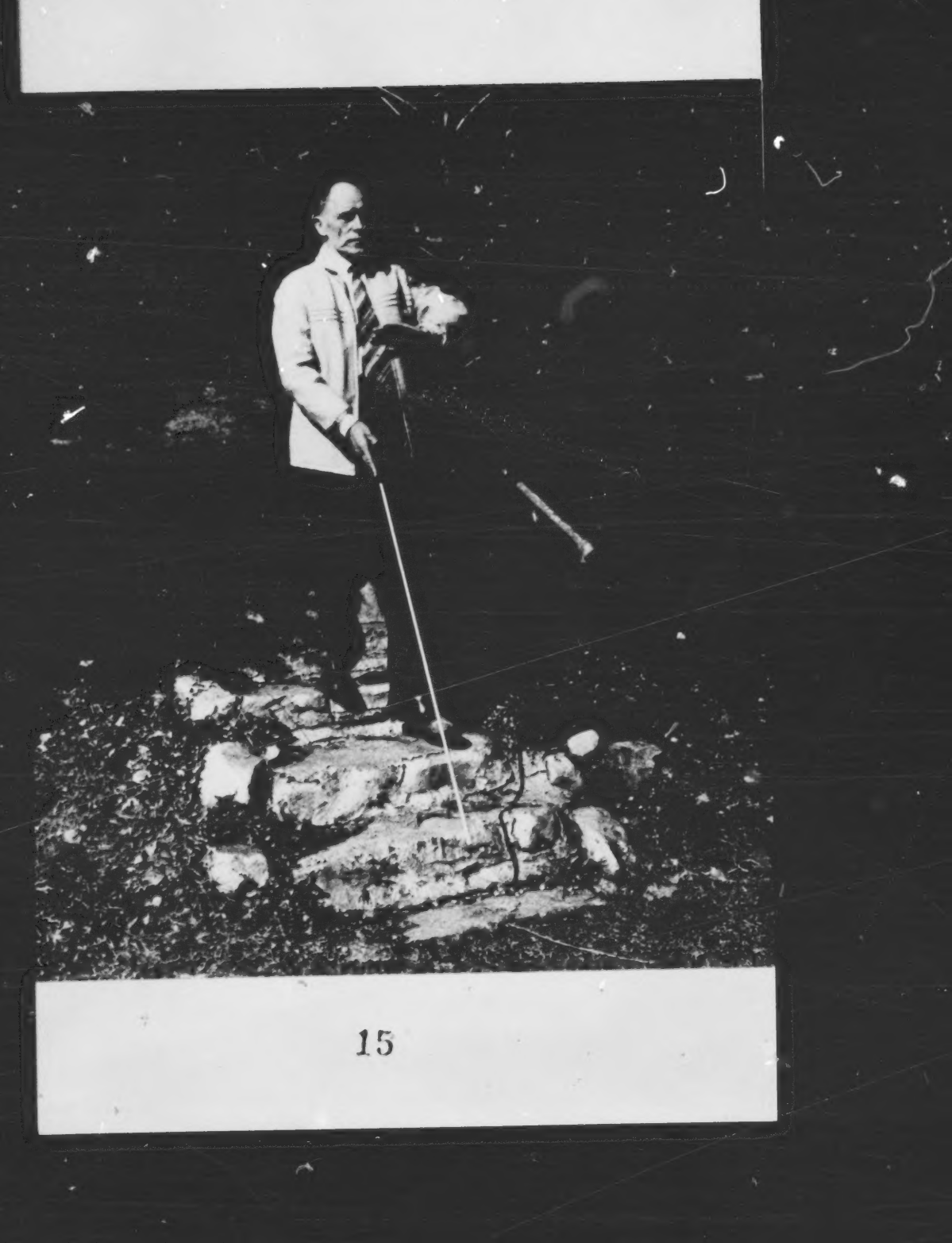
A glance at the Guide will further show that the Trainee is

continually exposed to new and varied content which becomes b oader as the Trainee progresses. We realize that it would be impossible to provide a Trainee with experiences which cover every possible context in which he will find himself. However, it should be clear that he must be exposed to many situations, with enough variables, to provide him with adequate experience in reacting correctly when he is confronted with situations in which he has not had training.

At the Guild it is not expected that each Trainee will receive instruction in each unit presented herein. Nor is it expected that every Trainee will achieve each level of functioning with equal ability. Differentiation of instruction for each Trainee is maximized throughout the training program, and progress charts are used daily to indicate a Trainee's ability with each skill. (See Appendix.) This Guide also allows for enough flexibility so that the instructor can emphasize those kinds of situations which are best for a particular Trainee. As a Trainee is completing instruction in a given unit, evaluations are built into the experiences in such a way that they are both developmental and continuous. In this way, the Trainee is constantly afforded the opportunity to reinforce his learning and integrate skills from other areas of instruction into a total experience.

It must be understood that the orientation and mobility specialist should use this Curriculum Guide only as a resource for structuring his own program. The total environment should be the classroom, and the imaginative specialist should not hesitate to seek out the environment that is most representative of the environment in which that Trainee will need to function. Further, he should continually expect his Trainee to develop the ability to recognize, interpret, analyze, project, interact, conclude, and integrate these abilities on an ongoing basis into a total process. The result will be a Trainee who is confident, and functional within his environment.

J.A.K.



UNIT I
USE OF SIGHTED GUIDES

A.1.0. OBJECTIVE

A.1.1. The Trainee, when using a sighted guide, will maintain himself in a position to receive information through the guide's body movements. In doing so, he will meet the following criteria:

—use the correct grip while holding the guide's arm;
—maintain his grip just above the guide's elbow;
—keep his arm in the correct position;
—remain one-half step behind the guide while walking;
—interpret varying speeds of the guide and adjust accord-
—ingly; and
—walk naturally and easily with the guide.

A.2.0. Suggested Learning Experiences and Procedures

A.2.1. The value of sighted guides will be explained. The Trainee will then relate his prior experience with guides. He will describe and demonstrate some methods he has encountered since being blind. These methods will be evaluated with the instructor and Trainee noting their advantages and disadvantages in relation to the Trainee's safety, awkwardness, physical limitations, and effectiveness.

A.2.2. Following this, the Trainee will be shown other methods of guiding such as pushing, pulling, and holding at the shoulder, if these have not been mentioned by the Trainee. These too will be evaluated by the Trainee in relation to the previous discussion.

A.2.3. The instructor will demonstrate and explain advantages of the correct grip for holding a guide's arm and the correct arm and body position in relation to the guide.

A.2.4. The Trainee will walk with the instructor as a guide over inclines, over various travel surfaces, making turns, stopping, slowing, and quickening his pace. He will follow on either the right or left side of the guide, alternating at the discretion of the instructor. These maneuvers will be discussed in relation to safety and ease of movement. The Trainee will follow the in-

Incorrect

Incorrect

Incorrect

Correct

Correct

structor over similar conditions alternating sides according to the Trainee's preference and comfort.

A.3.0. Suggested Experiences for Further Evaluation

A.3.1. As the Trainee walks with the instructor, friends, relatives, volunteers, or sighted pedestrians as guides, he will meet the criteria. He will do this throughout his training.

B.1.0. OBJECTIVE

B.1.1. The Trainee will interpret and use verbal and non-verbal information from his guide for safe, efficient, and poised travel. In doing so, he will meet the following criteria:

- –maintain the correct grip on the guide's arm;
- –maintain the correct position in relation to the guide while walking;
- –interpret varying speeds of the guide and adjust accordingly;
- –interpret and respond appropriately to tne guide's arm signal indicating it is no longer necessary to walk single file;
- –respond appropriately to the guide's arm signal and verbal information when going through closed doorways;
- –determine his position in relation to seats and clear them prior to sitting;
- –gracefully locate available railings at stairs; and
- –interpret and respond appropriately to the guide's body movement while traveling on stairs, and at curbs.

B.2.0. Suggested Learning Experiences and Procedures

B.2.1. Discuss non-verbal information that can be relayed to the Trainee by a guide's body movements. Examples of this include arm movements, turns, halts, lateral movement, and vertical movement.

B.2.2. The Trainee will then be shown the arm signal and its corresponding response that indicates the guide and blind person must walk single file due to congestion or a narrow space. This will be followed by a demonstration of the signal and its response which indicates single file movement is no longer necessary. The Trainee will then walk with the instructor as a

guide and practice responding to these signals. These signals and responses will be evaluated in relation to the Trainee's ease of movement, comfort, safety, and future travel.

B.2.3. Discuss the Trainee's pre-program experience with guides when going through doors. The Trainee and instructor will simulate those experiences and note any awkwardness or confusion. Explain the value of getting verbal information from the guide while approaching a door in regard to how the door opens (push or pull), and its location (left or right). Have the

Trainee add other information that he might consider important. Demonstrate the arm signal and its response when such doors are approached. Then demonstrate how the Trainee should position his body and free hand to hold the door for himself after the guide passes through. The instructor will then act as guide and have the Trainee practice following through several doors.

B.2.4. The type of information that the guide should offer when approaching a seat will be given. Such information includes: chair at a table, chair with arms, office style chair with casters, and a sofa. The Trainee should add any other information he might consider desirable. He will then be shown several ways the guide can place the Trainee in contact with the seat. Examples: the guide places his guiding hand on the seat, Trainee trails his free hand down the guide's arm to the seat; the guide positions the Trainee's body in direct contact with the seat; and the guide verbally indicates the location of the seat in relation to the Trainee. The Trainee should then ascertain if the seat is object free, either by obtaining this information from

the guide, or by physically clearing the seat independently prior to sitting.

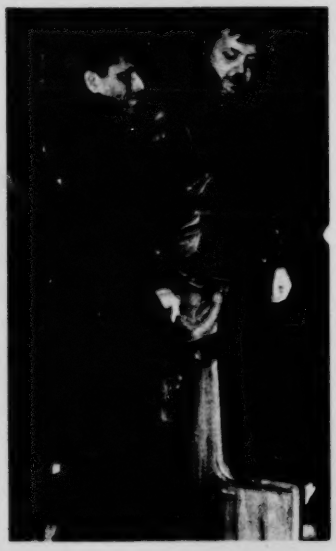
B.2.5. The Trainee will walk with the instructor as he is guided through open areas, congested areas, doors, and approach several different types of seats. The Trainee will practice seating procedures and be reinforced in previously learned aspects of sighted guide use.

B.2.6. Discuss situations where seats are arranged in rows, such as in a theater, auditorium, stadium and church pews. The discussion should include the Trainee's previous experiences with sighted guides in regard to confusion, awkwardness, embarrassing situations, and safety. The Trainee will be shown how the guide should approach the designated row of seats and the appropriate response to this approach. With the instructor acting as the guide, the Trainee will follow laterally into the row of seats. He will be shown when and how to use the forward row of seats as an additional direction indicator, and as a method to avoid disturbing the seated audience.

Note: *Trainees when attending church are reinforced in this*

procedure and are directed to provide feedback to the instructor when sighted guides are used. Trainees also receive reinforcement assignments from their respective Mobility Specialist, and in Leisure Time Instruction when they are assigned to attend movies, concerts, live theater, and sporting events.

B.2.7. The Trainee will listen to the instructor explain the type of verbal information required from a guide when approaching stairs. Particularly, the Trainee will be directed to ascertain from the guide if the stairs ascend or descend prior



to reaching the stairs. This information is required so that the Trainee can anticipate the guide's movement on the stairs.

B.2.8. At the stairway landing, the Trainee will be shown the relative position of the guide to the landing, how to locate the handrail if one exists, and how to use his foot to locate the first tread of steps. This is done so the Trainee need not grope for the railing or the step. In the process of negotiating the stairs, the Trainee will be directed to attend to the rhythm of the guide in order to anticipate the interruption of this rhythm at the land-

ing ahead. Correct interpretation of this rhythm will help to avoid taking an unnecessary step at the landing.

B.2.9. The Trainee will be guided over several flights of stairs and interact with the instructor in evaluating the Trainee's approach, negotiation, and safety on the stairs.

Note: *Ascending stairs are usually used before descending stairs in the event a particular Trainee is apprehensive about falling. In addition, Trainees are advised that handrails are safety devices that should be used by all persons whether sighted or blind. Trainees who have the physical ability are given experiences on stairs where handrails do not exist.*

B.2.10. Have the Trainee relate the similarity between approaching stairs and approaching street corners. Then discuss how one's alertness to environmental cues such as traffic movement, pedestrian movement, and distance can be used to anticipate an intersection when street crossings must be made with or without a guide. The instructor should then act as the guide and walk outdoors over routes involving street crossings. In doing so, the Trainee will interpret sensory information and appropriately negotiate the street corners with the guide.

B.3.0. Suggested Experiences for Further Evaluation

B.3.1. As the Trainee travels with instructors, volunteers, friends, relatives, and sighted pedestrians, he will meet the criteria.

C.1.0. OBJECTIVE

C.1.1. The Trainee will assume responsibility for ensuring his own safety and efficiency while using sighted guides. In doing so, he will meet the following criteria:

- —apply learned sighted guide techniques;
- —refuse offers of unwanted assistance courteously and effectively;
- —correctly and effectively re-position himself when a guide attemps to lead in an incorrect manner; and
- —instruct sighted persons in the proper manner of guiding blind persons.

Note: *Learning experiences in achieving this objective are*

generally provided in the course entitled Orientation and Mobility Seminar and subsequently reinforced in regular mobility classes. This group class meets weekly under the guidance of Orientation and Mobility specialists.

C.2.0. Suggested Learning Experiences and Procedures

C.2.1. Initiate a discussion on the advantages of the proper grip and position when using sighted guides. If necessary, encourage a verbal review of learned aspects of sighted guide use, while walking, approaching and negotiating stairs, and taking seats. As the Trainees participate, they will relate experiences they have had on regular mobility lessons or with their families and friends concerning use of sighted guides.

C.2.2. Under close supervision of the mobility staff, the Trainees will be grouped by twos and alternately role-play as sighted guide and follower. They will then be shown ways in which to refuse improper assistance and these will be practiced. Demonstrations should include physical disengagement and assumption of correct grip and position, and complete refusal of assistance. All methods will be evaluated by the instructors and the group in terms of courtesy, grace, effectiveness, and ease of execution.

C.2.3. The Trainees will discuss ways of communicating their mobility competence to sighted laymen. Each will explain methods he has used in the past to show family members or friends how to give assistance. The instructors will provide comments and/or suggested improvements in these methods if necessary.

C.2.4. The Trainees, in groups of two, will alternately role-play as a layman and receive instruction from their partners in proper guiding methods. Demonstrations should include proper approach, grip, walking, use of stairs, going through doors, congestion, and taking a seat. The instructors will provide feedback as needed.

Note: *The verbal aspects of seeking and refusing assistance are also taught in Spoken Communications class.*

C.2.5. Sighted persons such as volunteers, teachers, or secretaries will be provided to the group for further practice in demonstrating proper guiding methods. As each class member demonstrates, his classmates will provide comments and/or suggestions.

C.3.0. Suggested Experiences for Further Evaluation

C.3.1. Thoughout training the Trainee will verbally refuse and/or physically disengage his guide if his guide attempts to push, pull, or otherwise give improper assistance.

C.3.2. The Trainee will be assigned to demonstrate and explain to family and friends the proper guiding position and procedures while walking: in congested areas, through closed doors, up and down stairs, taking a seat, or crossing streets. He will be required to report on his effectiveness after weekend visits.

C.3.3 As the mobility staff meets and observes family members, the Trainee's instructional effectiveness will be evaluated.

Note: *During the Guild's Family Seminar, the mobility staff devotes time to teaching the proper sighted guide skills to the audience. All family members and friends of the Trainees are given the opportunity to role-play under staff supervision.*

UNIT II
BASIC INDOOR ORIENTATION AND CANE SKILLS

A.1.0. OBJECTIVE

A.1.1. The Trainee will safely and systematically orient himself and travel within unfamiliar rooms without a travel device. In doing so he will meet the following criteria:

- –use the hand and forearm, trailing and squaring-off techniques;
- –use systematic self-orientation procedures;
- –determine and effectively use landmarks;
- –determine shape, approximate size and function of rooms;
- –determine relationships of objects to one another within rooms; and
- –determine direct routes between objects in rooms.

A.2.0. Suggested Learning Experiences and Procedures

A.2.1. Discuss the Trainee's experiences in regard to traveling independently in indoor areas. This discussion should include a description of his home and all areas within his home. He will also state any organizational skills he might already be using. The Trainee will then listen as the instructor stresses and exemplifies: the importance of organization; the characteristics and uses of landmarks; and the differences between functional and general orientation.

A.2.2. The Trainee will be shown the arm and body positions to be maintained while using the hand and forearm and trailing techniques. He will further be shown how to square-off with objects in his environment while the purpose for doing so is concurrently explained.

A.2.3. As the instructor gives an organized description of the perimeter of a small, unfamiliar room, the Trainee will be encouraged to visualize the room and then repeat the description. Using hand and forearm and trailing techniques he will travel around the perimeter of the room and identify the objects and walls as he comes to them. This will be repeated until he can state the placement of objects in sequence. He will also be encouraged to estimate the size and determine the shape of the room.

A.2.4. The Trainee will then be shown systematic ways in which to determine if objects are located in the center or near the center of a given room. He will make this determination by crossing the room diagonally from each corner, and by crossing the room from the middle of each wall. In doing so he will be shown how to protect the lower portion of his body using the hands and arms. Both methods will then be evaluated in terms of their efficiency and clarity in establishing spatial relationships

A.2.5 The Trainee will then state the relationship of objects to each other which he has encountered. Feedback will be given as needed and other functional items in the room will be identified by the instructor in regard to placement. This can be done either verbally or while walking with the Trainee, using sighted guide skills.

A.2.6. The Trainee will then be shown how he might use an object as a landmark; how to use objects to square-off; how to determine angles between objects; and how to make accurate turns. He will then practice going from one object to another as indicated by the instructor. In doing so, he will use the trailing, hand and forearm and squaring-off techniques at the appropriate times.

A.2.7. Discuss how to obtain a systematic and meaningful orientation from sighted persons. The Trainee and instructor will role-play until the Trainee is able to ask appropriate questions which prompt a sighted individual to give functional information.

A.2.8. The Trainee will then apply his new learning regarding systematic orientation procedures to familiarize himself with unfamiliar rooms. While doing so he will continue to practice the hand and forearm and trailing techniques. The Trainee will subsequently describe the rooms to the instructor. The descriptions should include the estimated size, shape, function, identification and placement of furniture, location of light switches, exits, windows, and temperature controls.

A.3.0. Suggested Experiences for Further Evaluation

A.3.1. The Trainee will accurately and safely orient himself to unfamiliar rooms such as a kitchen, work-room, bathroom, living room or office. Upon completion of his self-orientation to each new room he will travel directly from object to object as named by the instructor.

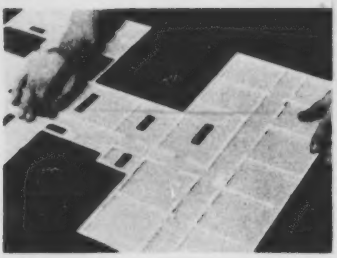
B.1.0. OBJECTIVE

B.1.1. The Trainee will safely and independently travel within a familiar indoor area without a travel device. In doing so he will meet the following criteria:

- –apply hand and forearm, trailing and squaring-off techniques;
- –determine and effectively use landmarks;
- –determine relationships between rooms;
- –determine direct and indirect routes between rooms; and
- –utilize sensory intake throughout the orientation process.

B.2.0. Suggested Learning Experiences and Procedures

B.2.1. Discuss the safety limitations of the hand and forearm techniques. Have the Trainee recall indoor areas with which he is familiar and the instructor will indicate in which of these areas it is safe to travel without a travel device, and the rationale thereof.



B.2.2. The Trainee will listen as the instructor describes the general structure of the building being used as to its shape, number of floors, position of stairs, location of elevators, entrances, and general characteristics of each floor. The instructor might also supplement the description by having the Trainee tactually examine floor plans. Following this, the Trainee will answer questions regarding the information.

B.2.3. The Trainee will first learn a necessary route such as from his bedroom to the bathroom and then reverse. While traveling, he will apply learned techniques of trailing and hand and forearm. He will also be shown how to identify and use landmarks, and other auditory and tactual cues. For continued practice he will gradually learn other routes which extend from his first route, until he has become oriented with the entire building.

B.2.4. As the Trainee becomes familiar with various direct routes between rooms he will discuss route combinations and then determine alternate routes between rooms. The Trainee will then travel self-determined routes in order to evaluate the accuracy and efficiency of the routes.

B.3.0. Suggested Experiences for Further Evaluation

B.3.1. The Trainee will travel throughout the building used for instruction. He will walk direct routes and self-determined routes not previously used between rooms.

B.3.2. The Trainee will travel various routes within the building under simulated emergency conditions which require building evacuation. While traveling these routes the instructor will simulate barricades along the routes which will require the Trainee to plan and execute an alternate exit route.

Note: *The Trainee will continue to be evaluated throughout his program as he travels within buildings in which it is appropriate for him to do so without the aid of a mobility device.*

C.1.0. OBJECTIVE

C.1.1. The Trainee will travel safely and independently in indoor areas while effectively using the diagonal or touch cane techniques. In doing so he will meet the following criteria:

- –maintain the proper grip, arm position and cane position when using the diagonal technique;
- –maintain the proper grip, arm position, arc height, arc size, synchronization, and quiet touch when using the touch technique;
- –use the cane to determine height, width, and depth of stairs;
- –detect and stop at drop-offs;
- –detect the landings at stairs with the cane;
- –determine the presence of obstacles with the cane and safely negotiate them;
- –shoreline consistently while maintaining proper touch technique;

—maintain his orientation; and
—use systematic orientation procedures.

C.2.0. Suggested Learning Experiences and Procedures

C.2.1. Discuss the prescription cane, its uses, its advantages and disadvantages, and the purpose for its measurement. Ascertain if the Trainee has had any past experiences with canes or if he has seen blind cane users. During this discussion, the instructor should attempt to determine the Trainee's attitude toward using or being seen with a cane, especially any negative feelings the Trainee might have in this regard. *Oftentimes these attitudes can be anticipated and the Trainee's counselor can provide appropriate counseling in this area.*

C.2.2. The Trainee's measurements for the cane will be taken. As the Trainee takes an active role in assisting in the construction of the cane, he will learn the names of the parts of the cane, how to replace tips, and general maintenance of the cane.

C.2.3. The Trainee will then be introduced to the diagonal method of using the cane. Situations and areas in which this technique can be applied will be explained and exemplified by the instructor. The Trainee will practice gripping, holding, positioning and walking with the cane in the diagonal position while trailing, and turning corners.

C.2.4. He will then learn how to use this technique while crossing open areas such as doorways, hallways, and large rooms. Emphasis will be placed on: interpreting tactual information received through the tip and shaft of the cane; maintaining proper distance from the trailing surface; maintaining

the proper grip, arm and cane position; maintaining orientation; and moving the cane lightly and with ease.

C.2.5. The Trainee will learn how to safely approach and examine familiar stairs. Following this he will be shown the correct cane positions for ascending and descending familiar stairs. He will practice until he consistently recognizes and reacts appropriately to the landings, and avoids using his feet to locate the last step. Handrails will be used when possible; however, he will practice using stairs with and without the use of handrails (unless medical or psychological factors contraindicate).

C.2.6. As the Trainee travels throughout the building he will practice using the diagonal technique on various floor surfaces, practice identifying these surfaces, and locating objectives. When he is skilled in using the diagonal technique, he will be assigned to use the cane on a regular basis and receive intermittent feedback from the instructor.

C.2.7. In an obstacle-free room or hallway, the Trainee will be introduced to the touch technique method of using the cane. Situations and areas in which this technique can be applied will be explained and exemplified by the instructor. The Trainee will be shown and will practice gripping, holding, positioning, and moving the cane. The Trainee will practice arcing the cane while stationary, until he develops tactual-kinesthetic awareness of the proper height and arc size of the cane, and can move the cane quietly and smoothly.

C.2.8. He will then practice walking with the cane with emphasis on synchronization, adequate coverage, low and balanced arc, maintaining proper arm position, and quietness of touch. He will continue to practice until he has a smooth, safe and quiet technique.

C.2.9. The Trainee will then practice in a large room with obstacles and be shown how to clear and move around obstacles, determine the safest route around obstacles, and maintain his original direction of travel after negotiating the obstacles. As the Trainee gains proficiency in negotiating these obstacles, he will then practice estimating his distance to obstacles based upon the point of contact of the obstacle against the cane. He will then be directed to examine the obstacle with his cane and identify it. Following these experiences, the Trainee will project as to how these techniques are applicable to outdoor travel as well as indoor travel.

C.2.10. Explain the shorelining technique and give examples of how and when it can be used. Then encourage the Trainee to state additional applications. Have the Trainee practice shorelining by following walls or travel surface changes, until his arc height, size, quietness, and synchronization are consistent.

C.2.11. Direct the Trainee to approach a flight of unfamiliar descending stairs and stop when the cane drops off the landing. He will then learn how to use the cane to determine his position on the landing, locate handrails when available and determine the depth and width of the first step. Then show the Trainee how to position the cane for descending the stairs and how to detect and clear the bottom landing. Point out that the cane can be placed in several positions for descending purposes, and have the Trainee practice these under supervision. These positions should be evaluated by the instructor and Trainee noting the advantages and disadvantages. The Trainee will then practice using the cane in the position which most effectively meets his

needs. This experience will be repeated for ascending stairs. When the Trainee gains proficiency in both methods he will practice using stairs while carrying out assignments in locating objectives throughout the building.

C.2.12. The Trainee will be directed to organize his concept of the building and actively orient the instructor in a role-playing situation. He will use appropriate cane skills during the active orientation.

C.3.0. Suggested Experiences for Further Evaluation

C.3.1. The Trainee will be directed to describe three different indoor areas with which he is familiar, such as his residence, church, and office. In a role-playing situation, he will verbally orient the instructor to these areas and do so in a systematic manner. If possible he will then orient the instructor to these areas using appropriate cane skills.

C.3.2. After the Trainee becomes independent in outdoor travel, he will be assigned to locate several small commercial establishments, orient himself within each, transact business in the appropriate manner, and meet the criteria related to the diagonal and touch techniques.

UNIT III
RESIDENTIAL SIDEWALK TRAVEL

A.1.0. OBJECTIVE

A.1.1. The Trainee will travel safely and independently as well as maintain his orientation within residential blocks. In doing so he will meet the following criteria:

- –use the touch technique with the proper grip, arm position, arc height, arc size, and synchronization;
- –use the sound of available traffic for straight walking and awareness of intersections ahead;
- –detect and examine all drop-offs and corners, and not overstep them;
- –approach corners without changing his direction;
- –detect and safely negotiate sidewalk obstacles;
- –re-orient himself if he veers from his intended line of travel;
- –disengage his cane from rough terrain while walking without altering his gait;
- –locate and turn into intersecting public sidewalks appropriately; and
- –shoreline consistently and smoothly when locating a landmark as he nears the completion of his trips.

A.2.0. Suggested Learning Experiences and Procedures

A.2.1. Discuss aspects of independent outdoor travel which may differ from those the Trainee has experienced while traveling indoors with the prescription cane. This discussion should include roughness of terrain and the possibility of the cane tip sticking in cracks; landmarks and their uses; types and uses of shorelines; and the types and most likely placement of common sidewalk obstacles. The Trainees will be encouraged to use visualization during the discussion.

A.2.2. The Trainee will then be taken to a spacious, obstacle-free area such as an unused parking lot and practice using the touch technique. The area will be described and the Trainee's attention will be directed towards cane technique and his adjustment to terrain surfaces, rather than orientation. As the Trainee practices, the instructor will describe and demonstrate

the procedures for disengaging the cane tip when it sticks on the pavement. These procedures will be employed as the Trainee follows the sound of the instructor throughout the area. The instructor will concurrently provide feedback concerning the Trainee's arc size, arc height, arm position, grip, lightness of touch, cane disengagement, and cane synchronization.

A.2.3. Discuss the value of making accurate turns and give examples of some orientation difficulties which could result from making incorrect turns, such as exiting from driveways, turning at corners, and negotiating sidewalk obstacles. The Trainee will make turns as defined by the instructor and feedback will be given as necessary until the Trainee is able to make accurate turns ranging from 45 degrees to 360 degrees in either direction. Maintaining compass point orientation will also be required. The Trainee will continue to practice using the touch technique while he localizes and/or follows the sound source provided by the instructor. He will make accurate turns and identify compass orientation as requested by the instructor.

Note: *If the Trainee demonstrates difficulty in developing kinesthetic memory for turns, or demonstrates inconsistencies in making accurate turns with or without environmental cues, this must be brought to the attention of the Sensory Training instructor so that instruction and reinforcement can be provided in both courses.*

A.2.4. Moving to a residential sidewalk, have the Trainee practice walking toward curbs, detecting them, and stopping as the cane drops off. He will practice walking from various distances and different angles of approach to parallel and perpendicular curbs. As this is done the instructor will demonstrate and explain how to examine, and determine whether the curb is on the parallel or perpendicular street. Explain also how to maintain accurate body alignment when reacting to drop-offs.

Note: *The instructor should provide close supervision and feedback during the early phases of this learning experience. This should be done in order to minimize possible anxieties that a given Trainee might experience concerning curb detection and similar terrain changes. As the Trainee gains confidence in his ability to interpret these drop-offs, instructor intervention should be lessened.*

A.2.5. The Trainee will be directed to walk the length of a residential sidewalk. While walking, the instructor will describe and/or demonstrate the type and degree of adjustment to the direction of travel that is required if a property line, obstacle, driveway ramp, or parallel curb is contacted. The Trainee will practice making these adjustments when necessary, as he walks the length of the sidewalk several times. Subsequently, he will be shown how to incorporate and apply the use of available traffic sounds in making his adjustments.

A.2.6. The Trainee will be verbally oriented to a given residence on a residential block and then be shown how to apply the shorelining technique to locate this residence from either direction. While practicing he will identify the types of shorelines he passes. Examples: grass, hedges, fences, stairs, and retaining walls. The Trainee will then project how this technique can be useful for self-orientation purposes, making accurate turns, establishing direction, or locating objectives.

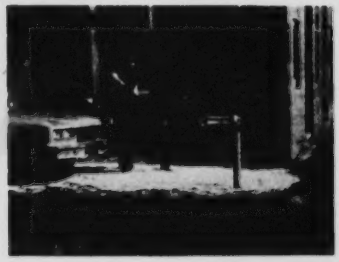
A.2.7. While continuing to shoreline he will recognize interruptions in the property line. Possible causes for these inter-

ruptions (walkways, driveways, parking lots, and recessed entrances) will be discussed and their characteristics will be noted. The Trainee will then be shown, and practice procedures for, identifying and safely negotiating each as they occur while he walks.

A.2.8. Discuss the need to be aware of traffic sounds and how they can be used to anticipate intersections. The Trainee will be encouraged to listen for traffic moving perpendicularly in front of him and to slow his rate of speed in anticipation of a drop-off at the corner. The instructor will then demonstrate and explain the procedures for tracing moving parallel traffic sounds as a guide for straight travel. The Trainee will practice this skill and receive feedback from the cane and the instructor.

A.2.9. The instructor will then describe several procedures which can be used for accurately locating intersecting sidewalks at corners and explain when to use each of them. The Trainee will practice applying these procedures throughout his training.

A.2.10. The Trainee will be instructed in: how to recognize when he has veered into a driveway and/or parking lot, which



cues to use to regain his orientation, how to return to the sidewalk, and how to verify his position on the sidewalk. The Trainee will be encouraged to visualize and utilize these procedures as necessary throughout his training.

A.2.11. Review the importance of using compass points for maintaining orientation, then have the Trainee walk around a residential block. As he changes direction at the corners he will state the new direction and identify the side of the street he is on, by compass point. He will continue to the starting point. Following this, he will be encouraged to integrate the use of auditory, tactual, and olfactory cues for orientation, and be directed to reverse his route on the block. At the completion of the route he will relate his analysis for instructor verification.

A.3.0. Suggested Experiences for Further Evaluation

A.3.1. The Trainee will be familiarized with a recognizable landmark on an unfamiliar residential block. He will be instructed to walk around the block and return to the landmark.

B.1.0. OBJECTIVE

B.1.1. The Trainee will safely and independently cross at stop-sign controlled intersections in residential areas. In doing so he will meet the following criteria:

- —approach intersections in a relatively straight direction;
- —apply cane and sidewalk travel skills;
- —determine the location of crosswalk areas and position himself within these;
- —establish his alignment, using available auditory or tactual-kinesthetic cues;
- —determine the shape, size and direction of traffic flow at intersections as well as the location of stop signs when traffic is available;
- —begin his crossings at the safest time;
- —cross streets within the crosswalk area and at the appropriate speed;
- —efficiently negotiate up-curbs after crossing; and
- —efficiently relocate his intended corners if veering occurs while crossing.

B.2.0. Suggested Learning Experiences and Procedures

Note: *The initial experiences at stop-sign controlled intersections should be conducted at intersections where traffic is light to moderate in order to minimize the Trainee's anxiety about performing this skill. As the Trainee gains proficiency under these conditions and in future residential travel, he should be given the opportunity to achieve the objective under all of the traffic conditions common at stop-sign controlled intersections within residential areas.*

B.2.1. Have the Trainee verbally review the procedures for maintaining a straight line of travel on a given sidewalk. The instructor will then re-emphasize the importance of straight walking while approaching an intersection which the Trainee intends to cross.

B.2.2. While standing at various positions on the corner, have the Trainee use the cane to note and compare differences in curvature of the street corner. By making these comparisons, he will be able to determine whether he is standing close to the parallel street. Following this, the Trainee will approach the corner from various distances and directions, and practice positioning himself so that he is relatively close to the middle of the crosswalk. Corner landmarks which can be useful for positioning will be discussed. Examples: mailboxes, street signs, inside shorelines, and street drains.

B.2.3. Explain the differences between alignment and position. Alignment indicates the direction one is facing in relation to the opposite corner, and position indicates one's relative location at the corner on which one is standing. Then have the Trainee verbally review previously learned techniques for straight walking and maintaining direction, such as, tracing parallel traffic, using perpendicular traffic, and following shorelines. These techniques should be related to establishing proper alignment on the street corner in preparation for crossing. Then demonstrate how curb curvature, inside shorelines, and corner landmarks can also be used to establish alignment.

B.2.4. Following this, the Trainee will practice approaching several corners from various directions, establishing a centered position in the crosswalk area and establishing his alignment. As he practices, he will be encouraged to utilize available cues

and relate which cues and skills he has applied in establishing his alignment. The advantages of each technique will be evaluated by the Trainee and the instructor. They will be discussed in terms of the Trainee's current and future travel plans. The Trainee will then practice with the parallel street on the left and on the right sides.

B.2.5. Describe the conditions under which it is safe to begin crossing under light to moderate traffic conditions. The Trainee will then practice analyzing traffic movement by sound and verbally state when it is safe to cross with feedback being given as needed. After this ability has been developed, he will practice stepping off the curb at the corner, under the supervision of the instructor, until he is able to properly coordinate cane movement with his normal gait. The advantages of a good step-off when beginning a crossing will be explained. Further, he will practice adjusting his speed while crossing in preparation for crossing streets of varying widths. He will be shown how to approach, clear, and step on to the opposite corner.

B.2.6. For continued reinforcement and practice, the Trainee

will approach several corners, position and align himself, determine the safe time for crossing, and cross to the opposite corner under the instructor's supervision. Feedback will be given as needed. As the Trainee gains proficiency and competency in crossing streets, the pitch and crown of the road will be pointed out. The manner in which he can use this as an indicator in anticipating the opposite curb at the corner will be explained.

B.2.7. As the Trainee continues to practice, he will be directed to veer to the left or to the right of the corner he intends to reach. Then explain how to determine the direction to which he has veered and have him practice the methods for relocating the intended corner.

Note: *This experience should be conducted with frequent instructor intervention in order to minimize any anxiety the Trainee might have concerning veering into the parallel or perpendicular streets while crossing. Instructor intervention should lessen as the Trainee gains proficiency in his recovery procedures.*

B.2.8. As the Trainee gains confidence, he should receive

supervised practice along several routes to which he has been previously oriented. He will thus be reinforced in the use of skills and techniques required for residential sidewalk travel. Practice routes will also be included where the volume of traffic is greater. On those occasions, the Trainee will learn to use direct sound tracing, direct sound localization, and direct sound distance estimation in order to determine the location of stop signs, and the shape and size of intersections.

B.3.0. Suggested Experiences for Further Evaluation

B.3.1. The Trainee will be physically or verbally oriented to several routes having stop-sign controlled intersections within a residential area. He will travel these routes under the instructor's observation.

B.3.2. The Trainee will independently complete out of class assignments on routes selected by the instructor, and report the results of each assignment. He will locate several small commercial establishments, orient himself within each, and transact business. (See Unit II–C.3.2.).

C.1.0. OBJECTIVE

C.1.1. The Trainee will safely and independently travel within residential areas having stop-sign controlled intersections. In doing so he will meet the following criteria:

- –apply cane and sidewalk travel skills;
- –apply skills for safe street crossings;
- –apply systematic self-orientation procedures;
- –solve problems without instructor intervention; and
- –analyze tactual and auditory sensory cues to interpret his environment.

C.2.0. Suggested Learning Experiences and Procedures

C.2.1. The Trainee and instructor will enter into a discussion concerning characteristics common to residential areas which the Trainee has or has not encountered. Examples: one-way streets, brick-surfaced roads, hills, and definitive block patterns. Have the Trainee project which sensory abilities he might apply in distinguishing these characteristics. The discussion should also include potential hazards or obstacles commonly

found in residential areas. Examples: bicycles on the sidewalk, unchained dogs, sidewalk construction, poor quality sidewalks, parked cars partially obstructing the public sidewalk, lawnmower and snow blower noises.

C.2.2. Exemplify various approaches to verbal familiarization to a hypothetical 12-block residential area, and have the Trainee note the differences and evaluate each. The instructor will then role-play as a sighted acquaintance. The Trainee will ask appropriate questions in order to obtain a systematic verbal orientation to the residential area in which he will work. The Trainee will obtain street names, directions, street patterns, and major landmarks through his questioning.

C.2.3. Upon arrival in the residential area, the Trainee will be informed of his position in terms of the parallel street, his compass direction, and his first perpendicular street. The Trainee will determine and relate his relationship to the remaining streets in the residential area by name, location, and compass direction.

C.2.4. On the same street, the Trainee will be assigned to consider a specific house as his residence. He will then be directed to familiarize himself with significant landmarks near the residence, and systematically explore the remainder of that side of the block so that he is able to accurately locate the residence approaching it from either direction. While doing this he will appropriately apply all previously learned sidewalk skills. When he has completed his self-orientation, he will relate all auditory and tactual cues he has noted, and indicate which ones he has judged to be useful landmarks. The instructor will evaluate these choices and point out those that might have been neglected.

C.2.5. Describe a straight northerly route to be followed which involves crossing a minimum of two streets. The Trainee will travel this route utilizing previously learned mobility skills and analyze his environment. He will then reverse that route and return to his starting point. Throughout the return trip, he will re-analyze his environment in order to confirm or alter his original analysis. At his starting point, the Trainee will verbally evaluate his performance and relate his findings. These will be supplemented by feedback from the instructor.

C.2.6. This experience will be repeated using southerly, easterly, and westerly routes in relation to the original starting point. Subsequently, this systematic method of gaining orientation to a new area will be discussed. The Trainee will project as to how this method might apply to his past, present, and future travel plans.

Note: *If alleys or blended corners at intersections exist in the area, the instructor will provide the Trainee with appropriate instruction for identifying and dealing with these.*

C.2.7. The Trainee will continue to travel routes within the same residential area beginning at various starting points, involving multiple direction changes, and having various objectives. After arrival at each objective he will determine an alternate return route and describe it prior to returning. This description should include any anticipated landmarks, and analysis of intersections when the return route involves familiar areas. After each return trip, discuss and evaluate the Trainee's planning and performance. These trips will be continued until the Trainee has traveled throughout the area, and has completed his analysis.

C.3.0. Suggested Experiences for Further Evaluation

C.3.1. The Trainee will be driven to and around the same residential area in such a way as to ensure his disorientation. He will not be informed of the starting point and will be directed not to seek or accept assistance from pedestrians in regard to determining his orientation. He will then be directed to walk and locate the specific objective with which he is familiar. Upon completion of the trip, he will relate his starting point, landmarks recognized and used, route traveled, and evaluate his performance.

C.3.2. The Trainee will be assigned to systematically orient himself to an unfamiliar eight block residential area within walking distance from the agency. He will be given sufficient time to accomplish this task based on his schedule and physical stamina. He will give the instructor regular reports which are either handwritten, typed, taped, or brailled. The reports should include information regarding travel surfaces, ter-

rain, landmarks, orientation cues used, analysis of intersections, shape and size of blocks, presence or absence of alleys, identification of each segment investigated during each visit, location of realistic objectives, possible routes and alternate routes between objectives. Upon completion of this self-orientation, the Trainee will walk with the instructor on a detailed tour of the area pointing out all items he has previously reported.

UNIT IV
RESIDENTIAL/SUBURBAN NON-SIDEWALK TRAVEL

A.1.0. OBJECTIVE

A.1.1. The Trainee will travel safely and independently while maintaining his orientation around residential/suburban non-sidewalk blocks. In doing so, he will meet the following criteria:

- –maintain contact with shorelines while walking;
- –differentiate between road and shoreline surfaces, and apply this to straight walking and locating objectives;
- –appropriately apply touch, touch and drag and/or three-point touch techniques;
- –differentiate street curvature from street corners; and
- –analyze sensory cues to interpret his environment.

A.2.0. Suggested Learning Experiences and Procedures

A.2.1. Discuss the general characteristics of residential/suburban non-sidewalk areas. Examples: blocks of various shapes and sizes, frequent absence of definitive block patterns, various types of shorelines and intersections of various shapes. The Trainee will then describe a residential/suburban area with which he is familiar, and relate his travel experiences in that area prior to and since the onset of blindness. They will discuss and illustrate mobility problems a blind traveler might encounter in such areas, as compared to those that exist in residential areas with sidewalks.

A.2.2. Review the orientation and mobility techniques learned and used thus far. The Trainee will then project which techniques and skills he will need to transfer, and use, in residential/suburban non-sidewalk areas.

A.2.3. On route to a residential-suburban non-sidewalk area, which has a minimum of vehicular and pedestrian traffic, the importance of effective shorelining will be stressed as a means to maintain a safe position on the street, to contact landmarks, to locate objectives, to maintain direction, and to recognize intersections. Upon arrival at the area, the Trainee will be di-

rected to walk along both sides of several streets having various shorelines. He will use the touch technique and be required to identify and maintain contact with each shoreline.

A.2.4. The touch and drag technique will be demonstrated and its purpose explained. The Trainee will then practice this technique on the same streets previously used. While walking, the Trainee will be required to maintain contact and identify each shoreline, and identify travel surface changes.

A.2.5. Demonstrate and explain the use of the three-point touch technique and have the Trainee practice until he develops consistency in synchronization and ease of walking. All three techniques will then be evaluated by the instructor and Trainee in terms of which is most effective for gathering sensory cues, and they will discuss the rationale for determining when each should be used.

A.2.6. For experience in deciding on and applying the various cane techniques, the Trainee will be directed to walk around one block which contains various types of shorelines and travel surfaces. While walking, he will analyze his environ-

ment using available sensory cues, and decide when to employ the appropriate cane technique. Upon completion of his trip, he will relate his analysis and rationale for the decisions he made. These will be supplemented with feedback from the instructor as needed. This experience will be repeated in other portions of the area.

A.3.0. Suggested Experiences for Further Evaluation

A.3.1. The Trainee will walk around several unfamiliar resi-

dential/suburban non-sidewalk blocks. On each route, he will establish landmarks at his starting point for ease of recognition when he returns. Upon completion of each trip, he will verbally describe the block in terms of its shape and comparative length of sides. He will also identify shorelines, road surfaces, and note significant landmarks.

B.1.0. OBJECTIVE

B.1.1. The Trainee will safely and independently travel

within residential/suburban non-sidewalk areas, having stop-sign controlled intersections. In doing so, he will meet the following criteria:

- –shoreline consistently;
- –identify road and shoreline surfaces;
- –use cane and travel skills;
- –recognize curvatures and turns;
- –locate crosswalk areas at intersections;
- –analyze intersections when cues are available;
- –cross at the correct time;
- –appropriately apply touch, touch and drag and/or three-point touch techniques;
- –detect, identify and negotiate obstacles and drop-offs;
- –locate and identify landmarks;
- –apply systematic investigative procedures;
- –determine shapes and sizes of blocks;
- –determine block pattern design;
- –maintain his orientation; and
- –demonstrate smooth cane techniques and ease of walking.

B.2.0. Suggested Learning Experiences and Procedures

B.2.1. Discuss some of the similarities and differences between sidewalk and non-sidewalk residential intersections. The Trainee will state possible difficulties and solutions, based on his prior learning experiences.

B.2.2. The Trainee will listen as the instructor explains how to locate crosswalk areas and negotiate uncontrolled and stop-sign controlled intersections. He will then practice "boxing" intersections both clockwise and counter-clockwise. The inter-

sections should include "plus," "T," "Y," and offset shapes. The Trainee should establish landmarks as necessary.

B.2.3. Discuss the randomly shaped block patterns found in residential/suburban non-sidewalk areas such as circular, rectangular, and triangular, and how these relate to gaining orientation to such an area, or to given routes within. In addition, discuss available sensory cues in non-sidewalk areas, and have the Trainee compare these cues to areas with sidewalks. The Trainee will practice recognizing and identifying cues as he travels given routes throughout the area.

B.2.4. The instructor will role-play as a sighted acquaintance, and travel sighted guide with the Trainee along selected routes to objectives. The Trainee will be directed to determine, through appropriate questioning and sensory analysis, the most effective means of traveling the routes, maintaining orientation, and locating those objectives. He will then travel each route independently. Upon completion of each, he and the instructor will evaluate the Trainee's total performance.

B.2.5. The Trainee will then be directed to walk several diff-

erent routes, following verbal directions, and apply whichever cane technique he judges to be most effective. Further, he will establish landmarks, determine the existence of and negotiate street crossings, make directional changes, and maintain his orientation.

C.3.0. Suggested Experiences for Further Evaluation

C.3.1. Using an unfamiliar residential/suburban non-sidewalk area, the Trainee will be directed to use a home as a starting point, travel throughout the area, analyze and orient himself to the extent necessary to visit several distant "neighbors," and locate the local bus stop.

C.3.2. When the Trainee is able to use public transportation independently, he will then be assigned to orient himself to a larger residential/suburban non-sidewalk area. He will be given sufficient time to do this based on the distance to be traveled to the area, and his schedule and stamina. He will be required to submit a typed, taped, handwritten, or brailled report to the instructor after each visit to the area. The report should include

information regarding: travel surfaces, terrains, shapes and sizes of blocks, patterns of blocks and streets, tactual landmarks, auditory cues, auditory landmarks, analysis of intersections, identification of shorelines and techniques used, significant drop-offs encountered, significant obstacles encountered, landmarks established at "T," "Y" and offset shaped intersections, common characteristics throughout the development, characteristics between certain blocks as they differ from other blocks, and any other situations which occur that require problem solving on his part. Upon completion of his self-orientation process, the Trainee will walk with the instructor on a tour of the area where he will point out his reported findings.

UNIT V
RURAL NON-SIDEWALK TRAVEL

A.1.0. OBJECTIVE

A.1.1. The Trainee will travel safely and independently along paved or unpaved rural roads and maintain his orientation. In doing so he will meet the following criteria:

- –determine when to use and appropriately apply the touch, touch-and-drag, touch-and-slide; and/or three-point touch techniques;
- –differentiate between road and berm surfaces and apply this to maintaining orientation and direction;
- –differentiate between curves and turns and apply this to establishing and maintaining direction;
- –detect and negotiate drop-offs and obstacles;
- –locate crosswalk areas;
- –cross roads and intersections at the safest time;
- –analyze intersections when cues are available;
- –accurately determine the safest and/or appropriate side of the street to walk on;
- –accurately determine where and where not to walk on the road surface;
- –determine when it is necessary to step-off the side of the road, and safely do so at the appropriate time;
- –accurately interpret his environment;

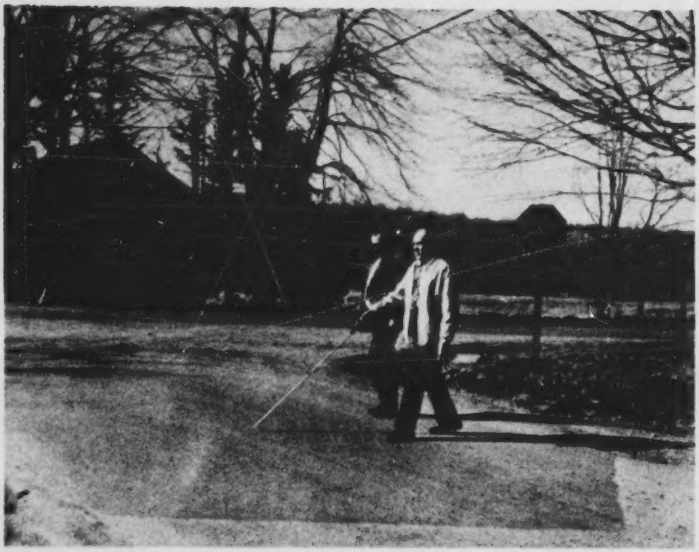
A.2.0. Suggested Learning Experiences and Procedures

A.2.1. The Trainee will describe his rural home area or any other such area with which he is or will need to be familiar. He will relate the results of his experiences while traveling in rural areas, prior to and since the onset of blindness. He and the instructor will then discuss common characteristics and peculiarities of rural areas. He will project possible problems, difficulties, and hazards which one is likely to encounter. Further, he will recall skills and procedures required for residential areas and suggest which of these might apply to rural travel. Supplement as needed.

A.2.2. The Trainee and instructor will go to a rural paved highway containing moderate vehicular traffic. Discuss these

traffic conditions in relation to analyzing road conditions ahead by sound, and in relation to the safest place to walk along the road with moving traffic. Then have the Trainee practice walking along the road by shorelining using the touch technique. As he walks, the instructor will introduce the three-point touch, the touch-and-drag, and the touch-and-slide techniques, and explain when they should be used. As the Trainee continues, he will apply these skills to maintain contact with the shoreline and interpret and identify the various travel surfaces. This experience will be repeated on both sides of the road as the instructor concurrently explains when and how to use the berm of the road, rather than the road surface for walking.

A.2.3. On several different paved rural roads, have the Trainee integrate the use of traffic sounds for analyzing and interpreting the road conditions ahead. As he identifies road curvature, he will estimate his distance to that point, walk that distance, and then be shown how and when to change sides of the road in order to safely negotiate the curve. As he continues these experiences the Trainee will project ways in which road



curvatures can be useful landmarks and orientation aids.

A.2.4. Have the Trainee verbally review the methods for crossing streets in residential areas, and have him relate any similarities and differences, compared to crossing intersections and roads in rural areas. Then have him travel along several rural highways having intersections, for practice in distinguishing the difference between road curvatures and turns at intersections. As he practices, he will be shown how to locate crossing lanes at intersections and practice crossing these as they occur. In addition, he will practice identifying and interpreting the various types of reflected sounds that occur along rural roads from embankments along the road, wooded areas, and large barns or houses.

A.2.5. The Trainee will be taken to a rural unpaved road and be shown how to apply cane techniques appropriately for straight walking and maintaining direction. Further, he will be shown how to use the road as the travel surface, use the berm as the travel surface, walk in the middle of the road, and/or use ruts in the road for directional cues. As he walks,

he will interpret available sensory cues and use the cane appropriately. This experience will be repeated on several rural unpaved roads until the Trainee demonstrates competence and confidence.

A.3.0. Suggested Experiences for Further Evaluation

A.3.1. The Trainee will be directed to walk several routes within an unfamiliar rural area, locate objectives, reverse the routes, and return to his starting points. Upon completion of each route he will discuss his findings with the instructor.

Note: *Routes should involve locating objectives that necessitate the Trainee's use of time-distance estimation, reflected sound recognition, travel surface recognition, auditory identification and intersection recognition.*

B.1.0. OBJECTIVE

B.1.2. The Trainee will travel safely and independently in woods and through fields while maintaining his orientation. In doing so he will meet the following criteria:

—maintain contact with shorelines;
—determine when to use and appropriately apply the touch, touch-and-drag, three-point-touch, and/or touch-and-slide techniques;
—detect and negotiate obstacles and drop-offs;
—recognize turns and curvatures;
—recognize and note discernible landmarks;
—determine travel surfaces;
—interpret his environment; and
—obtain functional orientation from sighted persons.

B.2.0. Suggested Learning Experiences and Procedures

B.2.1. The Trainee and instructor will discuss his past experiences in traveling along footpaths located in woods and fields. The Trainee will note common characteristics and peculiarities of such areas. He will project the difficulties, possible orientation problems, hazards that one is likely to encounter, solutions and precautionary measures.

B.2.2. On route to an open field having discernible footpaths, the Trainee and instructor will review the need to adapt the cane technique to assure safe terrain on which to walk, to determine unevenness of terrain, and to provide the most feedback for texture discrimination. The Trainee will then travel along a footpath adapting his cane techniques appropriately, and using his auditory, tactual, and thermal senses to aid him in recognizing the presence of obstacles prior to coming into contact with them.

B.2.3. As he continues to travel the paths he will check to determine if there are any hills or buildings in the area by producing sounds himself, and listening for reflection. He will be made aware that he can use the presence of reflected sound from a hill, barn or house as an orientation indicator, as well as indirect sounds of distant highways. He will be encouraged to give examples of other possible cues. Examples: types and height of foliage along the path, downgrades and upgrades, farm or field odors, and sunshine. He will travel along footpaths in fields and open areas maintaining contact with both sides of the path, so as to determine the existence of intersecting paths, as he adapts his cane technique and investigates for

orientation cues.

B.2.4. The Trainee and instructor will then travel to wooded areas having discernible footpaths and open fields. The Trainee will either discover or be familiarized with recognizable landmarks and estimate their distance and direction from the starting point, and from each other. Example: fallen log across the path—20 yards (18 m) from entrance of the path; curvature in the path at the same time as a brook is heard to the left —40 yards (36 m) from fallen log across the path, and 60 yards (54 m) from the entrance. He will be directed to maintain contact with both sides of the path. The Trainee will then reverse the routes, state the landmarks and distance that he must travel before he encounters them. He will stop along the return routes at each landmark, identify them, and again state the upcoming landmarks.

B.2.5. For practice in gaining orientation from a sighted acquaintance, the instructor will role-play, and the Trainee will be directed to ask appropriate questions of the instructor while walking. He will analyze his travel surface and environment in order to obtain functional orientation to footpaths. These experiences will be conducted on various types of trails and on footpaths located in both woods and fields. When the Trainee has obtained orientation to each route, he will travel it independently under the instructor's observation. At the completion of each route the instructor and Trainee will evaluate the total performance. The Trainee will have experience obtaining orientation from verbal directions alone, and also by using verbal with active orientation.

Note: *Instruction should also be given in areas without dis-*

cernible footpaths as indicated by the needs of a given Trainee. These experiences would include following low grass adjacent to high grass, travel through fields and meadows, and travel along fire trails.

B.3.0. Suggested Experiences for Further Evaluation

B.3.1. The Trainee will be taken to a rural area, given verbal directions to follow a rural road, and locate a path which takes him through a wooded area and field where he will locate an objective. Upon completion, he will state the landmarks noted, the general direction and distance of the route.

B.3.2. As the Trainee participates in picnics and similar outings in Leisure Time Instruction, he will be assigned to obtain orientation from a sighted volunteer, and independently travel to and from comfort facilities, eating facilities, and nearby recreation areas. He will also go hiking with others and travel independently at his discretion. He will report the results of his efforts to the instructor.

MY PERIPATOLOGIST DID NOT TELL ME THAT ANYONE LIVED IN THESE WOODS!

UNIT VI
LIGHT CONTROLLED INTERSECTIONS

SECTION I

Note: *The sections within this unit should be introduced by the instructor when it is judged that the Trainee is skillfully and attitudinally ready. Section I can be incorporated prior to or while working in small or medium business areas, and Section II can be conducted while working in medium business or metropolitan areas.*

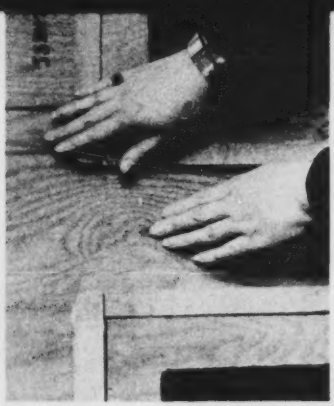
A.1.0. OBJECTIVE

A.1.1. The Trainee will cross safely and independently at light controlled intersections having light to moderate traffic and minimal pedestrian activity. In doing so, he will meet the following criteria:

- –apply cane and travel skills;
- –approach intersections using cane skills and parallel traffic for straight walking;
- –position himself using tactual, and perpendicular traffic cues;
- –align himself using parallel and perpendicular traffic cues;
- –determine shape, size, direction of traffic and manner of control of intersections;
- –identify and localize cue cars;
- –cross at the correct time;
- –stay within the crosswalk area while crossing;
- –correct any veering done in the process of crossing;
- –respond correctly to approaching vehicles while crossing; and
- –demonstrate physical signs of poise and confidence through maintenance of normal gait and posture.

A.2.0 Suggested Learning Experiences and Procedures

Note: *The initial experiences at light controlled intersections should be provided where light vehicular and pedestrian activity exist, so that the Trainee is not overwhelmed with the quantity of sensory cues available under more congested con-*



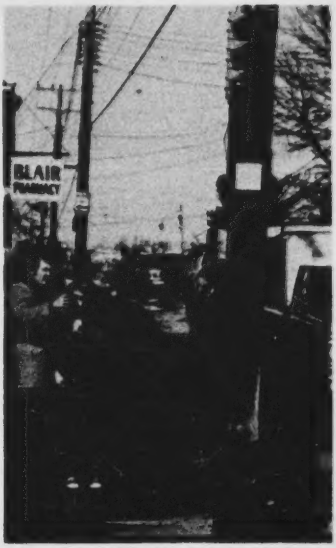
ditions. The intersections should be "plus" shaped and have well-defined curbs. Also, in order to minimize a given Trainee's anxiety about performing this skill, techniques for right-turn-on-red should be delayed.

A.2.1. Discuss the Trainee's past experiences and knowledge regarding light controlled intersections. Include the conditions which necessitate these types of intersections, the sequences of the lights changing, the behavior of motorists at light controlled intersections, and right-turn-on-red conditions. They will further discuss the need to transfer previously learned skills of direct sound, identification, tracing, discrimination, selectivity, localization, and distance estimation as they apply to positioning, aligning, and analyzing intersections.

A.2.2. The Trainee and instructor will go to a light controlled "plus" shaped intersection, and the Trainee will approach the corner with parallel traffic on his left using cane skills and traffic movement. As he listens to traffic movement, he will be directed to align and position himself, verbally identify the direction of parallel and perpendicular traffic, state the shape of the intersection, describe the stop-go movement of parallel and perpendicular traffic, determine the manner of control, determine the number of moving lanes of traffic contained on both the parallel and perpendicular streets, and determine the presence or absence of parking lanes.

Note: *If the Trainee has particular difficulty in analyzing intersections, this must be brought to the attention of the Sensory Training instructor who will then assist in providing reinforcement activities.*

A.2.3. The Trainee and instructor will engage in a lecture-



discussion concerning the need to localize and use traffic in the perpendicular street, as a secondary cue for position. The Trainee will then re-approach the corner and practice positioning himself integrating the use of perpendicular vehicles. He will inform the instructor when he has made all necessary adjustments and they will discuss which cues the Trainee used and evaluate his accuracy.

A.2.4. Explain the use of perpendicular traffic as a secondary cue for alignment. Then have the Trainee practice applying this skill and give feedback as needed.

A.2.5. Continuing with parallel traffic to the left, discuss and identify the relative positions of stopped vehicles at "plus" shaped intersections. Clock references can be used to clarify these positions. The instructor will define and identify cue cars and describe how, when, and why they are to be used. The Trainee will listen through several cycles of traffic and practice verbally identifying the presence of cue cars, and stating the exact moment of their movement. Following this, the Trainee will be encouraged to incorporate the use of perpendicular

traffic as a cue for anticipating movement of parallel traffic.

A.2.6. The Trainee will "box" the intersection while walking sighted guide with the instructor in the counter-clockwise manner. At first, the Trainee will be directed to concentrate on listening to the cue cars. At the exact times these cars move, the instructor will initiate the crossing and guide the Trainee across the street. They will continue to "box" the intersection in this manner until the Trainee is able to distinguish the exact moment he should begin his crossing. At that time, the Trainee

will initiate the crossing by signaling the instructor when to start. If his decision is accurate, the instructor will guide the Trainee across the street. If the Trainee is not correct, the instructor will remain on the corner and they will discuss the Trainee's auditory misinterpretation.

A.2.7. As they continue "boxing" the intersection by sighted guide, they will discuss the need to transfer the previously learned skills of using parallel traffic for straight walking while crossing streets and making accurate turns. The need to be

alert to vehicles approaching the street being crossed will also be discussed as it relates to making proper alterations in gait and speed. The instructor will demonstrate as they cross the streets together.

A.2.8. After the Trainee has been consistently accurate in localizing and determining when to cross, he will begin to practice "boxing" the intersection independently. The instructor will provide feedback as necessary. For further practice, the Trainee will walk along several routes with traffic on his left, and analyze and cross any light controlled intersections along these routes. These routes will have both one-way and two-way streets. He will travel and cross these streets until he consistently does so accurately, safely, confidently, and with a minimum of hesitation.

A.2.9. At the initial or similar intersection, the Trainee will approach with parallel traffic on his right, and position and align himself using parallel traffic, perpendicular traffic, and tactual cues. He will then verbalize the similarities and differences in localizing the cue cars from this position compared to when he had parallel traffic on his left side. The implications of the differences and similarities will be explained by the instructor.

A.2.10. The Trainee will practice "boxing" the intersection independently, receiving feedback from the instructor regarding his position, alignment, use of parallel traffic for straight walking, starting, and recognition and response to approaching vehicles, until he demonstrates exac ees of techniques, timing, poise, and confidence.

A.2.11. Have the Trainee appro a an unfamiliar "T" shaped

light controlled intersection and analyze it. He will describe its shape in relationship to himself. Based on this analysis, the Trainee will compare the procedures for crossing the stem of the "T" to crossing a "plus" shaped intersection. He will then compare procedures for crossing a "plus" shaped intersection to crossing the top of the "T," and then "box" the intersection in a clockwise and counter-clockwise manner. The instructor will give feedback and supervision as needed.

A.2.12. The Trainee will continue to approach, align and position himself, identify and localize cue cars, and independently cross at "T" shaped light controlled intersections, until he demonstrates exactness of techniques, timing, poise, and confidence.

A.3.0. Suggested Experiences for Further Evaluation

A.3.1 The Trainee will be taken to several unfamiliar residential and/or medium sized business districts. He will verbally be given several routes to walk which will be six to eight blocks in length, have multiple directional changes, have various types of intersections with both stop-sign and light control and "plus" and "T" shapes. While walking these routes the Trainee will meet the criteria.

A.3.2. The Trainee will complete out of class assignments for Mobility, Techniques of Daily Living, Household Arts, Household Mechanics, Leisure Time Instruction, or for his own leisure, along routes containing light controlled intersections. Upon completion of these assignments he will report the results to the mobility instructor, and evaluate his own performance.

UNIT VI
LIGHT CONTROLLED INTERSECTIONS

SECTION II

A.1.0. OBJECTIVE

A.1.1 The Trainee will cross safely and independently at light controlled intersections having heavy vehicular and pedestrian traffic. In doing so, he will meet the following criteria:

- –apply cane and travel skills;
- –appropriately approach, align, position, analyze, and cross at intersections using pedestrian and vehicular traffic as cues;
- –identify and localize all cue cars;
- –cross all streets at the correct time;
- –maintain his position within the crosswalk area while crossing;
- –return to his intended line of travel if veering occurs;
- –use sound of vehicular and pedestrian traffic for straight walking;
- –respond correctly to approaching vehicles while crossing; and
- –demonstrate physical signs of confidence and poise through a normal gait and posture.

A.2.0. Suggested Learning Experiences and Procedures

A.2.1. Discuss variations possible at light controlled intersections. The Trainee will be encouraged to visualize these variations. Tactual models can also be implemented. The discussion should include shapes of intersections such as "Y," "X," "T," 5-point, 6-point and offset. Also, the variations in controls such as a special light for turning lanes, walk-sign with parallel traffic moving, walk-sign with no traffic moving and bell with light controlled intersections will be discussed.

A.2.2. At many different intersections with heavy vehicular and moderate pedestrian traffic, the Trainee will analyze each accurately as to shape, size, manner of control and direction of traffic. Further, he will approach, align, position himself at each corner of each intersection, determine the exact moment

to safely cross, and then cross. The instructor will provide appropriate feedback as well as any further instruction necessary in the transferring of learned auditory and mobility skills to the new situations. The shapes of the intersections should include "Y," "X," "T," 5-point, 6-point and offset. As the Trainee gains competence, intersections with the following variables should be introduced: safety islands, right-turn-on-red, bell-light controlled, and pedestrian "walk" signs.

A.2.3. At a light controlled intersection with large volumes of pedestrian traffic, the Trainee and instructor will discuss procedures which should be applied in crossing. Included in this will be instruction in using crowds for positioning, alignment and determining when to cross at walk-sign controlled intersections. The Trainee will walk sighted guide with the instructor, as the instructor demonstrates the use of crowds. The Trainee will then practice crossing independently.

A.2.4. The Trainee will practice analyzing intersections and identifying those in which he can use crowds as his primary cue. He will analyze each intersection, align and position him-

I KNEW I SHOULD HAVE TURNED WEST AFTER THAT LAST TRAFFIC LIGHT!!

self, determine the appropriate time to cross, and "box" each intersection both clockwise and counter-clockwise.

A.3.0. Suggested Experiences for Further Evaluation

A.3.1. The Trainee will verbally be given several routes within large business and metropolitan areas involving several directional changes, various shaped and controlled intersections, with varying amounts of vehicular and pedestrian traffic. While walking these routes, he will maintain his orientation, note and use significant landmarks, and analyze unfamiliar areas. Upon completion of each route he will verbally review his experience with the instructor.

Note: *For further integrative experiences see Unit VII—Business Area Travel, Unit IX—Metropolitan Area Travel and Unit X—Commercial Non-Sidewalk Area Travel.*

UNIT VII
BUSINESS AREA TRAVEL

A.1.0. OBJECTIVE

A.1.1. The Trainee will travel safely and independently on sidewalks in a business area, cross at any intersection, and maintain his orientation. In doing so, he will meet the following criteria:

- –utilize auditory activities, for straight walking;
- –safely negotiate sidewalk obstacles;
- –accurately approach, analyze, position, align, and cross intersections;
- –analyze and negotiate parking lots;
- –courteously and effectively refuse unwanted offers of assistance from the public;
- –modify his cane technique and gait as necessary when walking among crowds; and
- –analyze sensory cues to interpret his environment.

A.2.0. Suggested Learning Experiences and Procedures

A.2.1. Discuss common characteristics of business areas and have the Trainee compare those characteristics to residential environments, as well as visualize the business area in his community. Included in the discussion should be: wider sidewalks, more frequent sidewalk obstacles, property adjacent to sidewalks, store fronts, recessed doors, increased pedestrian and vehicular traffic, one-way streets, and light controlled intersections. The Trainee will further project as to how outdoor conditions tend to change throughout a given day according to the volume of traffic and the volume of pedestrians. It might also be necessary for the Trainee to suggest previously learned skills and techniques for residential travel which are transferable to travel in business areas, such as maintenance of safe cane technique, locating drop-offs at corners, intersection analysis, street crossings, and accurate analysis and interpretation of the environment.

Note: *Some apprehensions that a Trainee might experience prior to proceeding into this unit include: concern about the increased volume and irregularity of traffic, crossing at stop-*

sign controlled intersections with heavy vehicular traffic, crossing at congested light controlled intersections, the Trainee's high visibility, the cane as an obstacle for pedestrians, pedestrian interference and right-turns-on-red situations.

A.2.2. While walking with the instructor on one of the streets within the business area, the Trainee will analyze traffic movement and conditions, as well as suggest ways to modify previously learned techniques for using parallel traffic for straight walking. As the Trainee continues to practice analyzing and

following traffic movement he will also use the cane to safely negotiate sidewalk obstacles. It should be pointed out that walking close to the building increases the chances of contacting store displays, and pedestrians exiting or entering business establishments. On the other hand, walking close to the parallel curb increases the possibility of encountering obstacles, such as parking meters, utility poles, parking signs and trash receptacles. During and after practice, the Trainee will explain the difference between using traffic in residential areas and busi-

ness areas, and project how he can apply these techniques in his home business community.

A.2.3. Pedestrian activity tends to be light during the early morning hours, increased through mid-morning and mid-afternoon, and lessened during late afternoon and early evening hours. After these characteristics have been discussed, the instructor will role-play as a pedestrian offering assistance to, or interfering with the Trainee's travel. The Trainee will review ways to disengage himself from unwanted assistance or from accepting verbal assistance. Further, he should project situations in which he might anticipate increased pedestrian encounters and interference such as at street corners or bus stops.

A.2.4. Instruction will then be given in how to analyze pedestrian movement and activity by sound and how to use these sounds as an aid for straight walking. If necessary, the Trainee will walk sighted guide with the instructor while he practices identifying pedestrian sounds and interpreting the activity involved, such as carrying packages, opening and closing doors, or determining the existence or absence of pedestrian conges-

tion. Concurrently, he will be shown how to use the cane under congested situations. The Trainee will then practice integrating the use of pedestrian and vehicular sounds as aids for straight walking. This practice should occur on several sidewalks in the business area.

A.2.5. As an additional aid for straight walking, the Trainee will receive instruction in identifying and interpreting the various types of reflected sound and indirect sounds that occur along the fronts of buildings in the business area. If necessary, he will walk with the instructor as a sighted guide and practice differentiating and interpreting reflected sounds and indirect sounds. He will also practice applying the use of reflected sound cues not only as a guide for straight walking, but also for locating businesses, maintaining orientation, and interpreting the environment. In addition to using sound recognition the Trainee will be directed to use his tactual, olfactory, and thermal senses.

Note: *If the Trainee demonstrates particular difficulties in his recognition and ability to use reflected, indirect, and direct sounds, as well as tactual and thermal cues, the Sensory Training instructor must be informed to provide the reinforcement necessary.*

A.2.6. As the Trainee walks along business district sidewalks and encounters large open areas, such as gas stations and parking lots, he will be instructed in how to use gradient changes and the touch-and-drag technique concurrently with vehicular and pedestrian traffic, to maintain a straight direction on the sidewalk. He will apply these techniques as he recognizes such areas.

A.2.7. The Trainee will integrate sensory cues while walking around one block in the business area. Feedback will be given as needed. At the end of the route, he will relate impressions of his ability, and his analysis of environmental conditions. He will reverse the route for continued practice.

A.2.8. As the Trainee gains experience and competence in analyzing, interpreting, and traveling on business sidewalks, he should be given the opportunity to transfer previously learned techniques for approaching, positioning, analyzing, aligning,

starting, and crossing at light controlled intersections. If necessary, the Trainee should verbally review part or all of these skills before crossing the intersections independently. In addition, the instructor will demonstrate how to use building fronts as guides for accurate positioning in the crosswalk area, and how to deal with pedestrian congestion at corners.

A.2.9. Further, he will receive instruction at intersections which have heavy vehicular traffic and are stop-sign controlled rather than light controlled. He will then practice approaching, positioning, analyzing, aligning, and crossing these types of intersections. The possibility of applying these skills to intersections which are normally light controlled but which are out of order will be discussed. Policeman controlled intersections will also be discussed and the Trainee will be exposed to such intersections.

A.2.10. He will practice negotiating light controlled and stop-sign controlled intersections in the business district, under supervision, with traffic on his left and right side. When the opportunity presents itself, the Trainee will be shown how to safely deal with vehicles which have stopped within the crosswalk area. He will also be shown how to safely negotiate the up-curb when obstacles have been encountered on the corner. Following this, the Trainee will be directed to walk several routes for reinforcement in sidewalk travel and for practice in negotiating the intersections.

Note: *For additional integrative experiences, see Unit VI—Section II.*

A.2.11. The Trainee will be oriented to several places within the business district that would require him to use multiple sensory cues for locating objectives. Example: Locate a theater in the middle of a block (distance estimation), its marquee (reflected sound), and its ticket window (change in travel surface). He will then practice traveling to, from and within the objectives that have been selected.

A.2.12. During the orientation to specific objectives the Trainee will also receive instruction in how to safely travel through a parking lot located along the property line in front of a business such as a supermarket, or small shopping center containing several small businesses. They will discuss various

approaches and the need to analyze traffic movement within the parking lot prior to traversing the area. The Trainee will be given the opportunity to analyze similar situations and travel through the lot on route to specific business establishments.

Note: *When the Trainee is able to negotiate parking lots to a supermarket, instruction will be given regarding the use of shopping buggies and carts. He will then practice and use them during shopping assignments in Techniques of Daily Living and Household Arts.*

A.3.0. Suggested Experiences for Further Evaluation

A.3.1. The Trainee will travel routes into a business district from several locations within an adjacent residential area. He will walk to one or more objectives with which he has been previously oriented, transact business within, and return to his starting point using either route reversal or self-determined alternate routes. While transacting business within he will be expected to appropriately apply communication skills and techniques of daily living skills.

A.3.2. The Trainee will be familiarized with a business district within walking distance from the agency. (A trained orientation and mobility aide may be utilized for this purpose.) The Trainee will then travel independently to, from, and within the business district. He will use this area for shopping and to attend to his personal needs, such as cashing checks at the bank, mailing packages at the post office, having lunch and/or having his hair cut. He will tend to all his personal needs without the aid of a volunteer throughout the remainder of his training.

B.1.0. OBJECTIVE

B.1.1. The Trainee will safely and independently orient himself to a business area. In doing so, he will meet the following criteria:

- –apply cane, sidewalk travel and street crossing skills;
- –interpret sensory data and verbally compare the similarities and dissimilarities between segments of the familiar and unfamiliar business area, as randomly specified by the instructor;

—apply systematic self-orientation procedures;
—analyze and solve any unexpected situation that occurs without instructor assistance;
—when pedestrians interfere, maintain his orientation and avoid prolonged interaction with the pedestrians;
—when seeking verbal directions from pedestrians, obtain accurate and useful information without prolonged interaction, and with minimal pedestrian encounters; and
—demonstrate physical signs of confidence through his gait, decisiveness, and posture.

B.2.0. Suggested Learning Experiences and Procedures

B.2.1. The Trainee will listen and repeat verbal routes within a business district. The routes will be partly familiar and partly unfamiliar. The Trainee will then be instructed to walk each route and re-analyze the familiar and unfamiliar areas. Each time he identifies a landmark, interprets orientation cues, or completes an analysis of an unfamiliar intersection, he will stop and relate his interpretations to the instructor for feedback. As these experiences continue the instructor will gradually provide fewer confirmations and corrections.

B.2.2. A starting point will be identified to the Trainee, and he will be given an unfamiliar objective to locate within the business area. He will be instructed to seek verbal directions to the objective from the public. Prior to traveling, there will be a discussion on judging the quality of directions, the reliability of pedestrians, as well as suggested types of persons from whom to request directions. He will then seek directions, analyze new environments, and locate the specified objective. Upon arrival

at the destination the Trainee will state the route he has used as well as his orientation findings. He will then project how this experience is applicable to his future travel situations in unfamiliar business areas.

B.2.3. As he continues to walk new routes (instructor and/or self-determined) he will relate the relationship between the new and familiar areas, thereby determining block patterns, and the relationship among business establishments.

B.3.0. Suggested Experiences for Further Evaluation

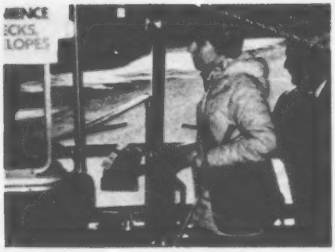
B.3.1. The Trainee will travel unfamiliar, as well as familiar routes in a business area at various times of the day. He will be given shopping lists and determine which stores to go to, including those with which he is or is not familiar, make inquiries and/or purchases, determine his own routes to, between, and from the business establishments, or seek directions from the public as necessary. While traveling the various routes, he will appropriately apply techniques learned in Communications, Visualization, and Techniques of Daily Living classes.

B.3.2. The Trainee will be assigned to orient himself and travel throughout an unfamiliar business area in the vicinity of his home area during weekend visits. He will discuss his findings with the instructor.

C.1.0. OBJECTIVE

C.1.1. The Trainee will safely and independently use public bus services. In doing so, he will meet the following criteria:

- –obtain accurate information regarding bus stops, time schedules, fares, bus names and numbers;
- –efficiently plan his time in order to get to his bus stops before the scheduled departure;
- –apply cane, sidewalk travel and street crossing techniques;
- –safely board and exit from the bus;
- –communicate effectively with bus drivers, pedestrians, and fellow riders;
- –analyze environments while riding; and
- –maintain his orientation.



C.2.0. Suggested Learning Experiences and Procedures

C.2.1. Discuss the Trainee's past experiences in using all forms of public transportation. The Trainee will relate which types of public transportation are readily available in his home community.

Note: *For our purposes we will deal with community bus services. However, instruction should also include subways, cabs, airplanes, trolleys, and/or local trains, depending on which services are available in the Trainee's community, or*

those which are projected as necessary in the Trainee's future.

C.2.2. Discuss the pre-informational gathering aspects required in using public transportation. The Trainee will be encouraged to have a braille list of informational points to be gathered before calling the public transportation company, so that he will not have to make repeated calls due to insufficient information. He will also be encouraged to use a tape recorder to record the information. His list should include: name of the bus, number of the bus, location of bus stop at starting point and destination, location of bus stops for return trip, amount of bus fare, time to get bus as well as arrival times at destinations for round trips. The Trainee will be informed of the unique bus practices in the area, such as having the exact change when boarding, reduced fare programs for the visually handicapped, or free transportation for senior citizens during non-peak hours.

Note: *If the Trainee is eligible for reduced fare or senior citizen's passes, this information will be made known to him. If the Trainee desires such a pass the application will be made early in the program so that it will be available when instruction on buses is given.*

C.2.3. The procedure and safety involved in using community buses will be explained and practiced. This can be done on a bus at the bus garage or through simulation in a classroom. The following points should be included: identifying and approaching the bus; when and how to board the bus; how to determine if the bus is the one desired; where to sit on the bus for best visibility by the driver; and how to be assured of being informed of his destination.

C.2.4. The Trainee will be assigned to seek the information necessary to take a bus from the vicinity of the agency to a preselected area. The Trainee will be directed to get his pre-information regarding the trip and submit this to the instructor in either handwritten, taped, typed, or brailled form. He will then be required to travel independently to the bus stop prior to the class in which he will use the bus in order to establish landmarks near its location.

C.2.5. The Trainee will review the information he has acquired with the instructor. He will be sure he has the correct

COULD YOU PLEASE TELL ME WHEN AND WHERE I CAN CATCH A BUS TO PUNXSUTAWNEY?
© AMERICAN CENTER PORT AUTHORITY
WHY THE O'BLEED I'D DON'T'CHA LOOK AT THE @'BLEEDIN'/@ SCHEDULE?!

change. He will then be directed to travel independently to the bus stop where he will wait and listen for approaching buses. When other pedestrians are awaiting the bus, he will be encouraged to converse with them, and with others while riding the bus, so that he can indirectly make others aware of his destination. As various buses approach and stop, the Trainee will practice localizing, approaching, and determining the boardability of each. He will board his bus at the appropriate time.

Note: *For the first few trips, a bus stop which is not used by more than two or three buses will provide sufficient practice without incurring Trainee frustration.*

C.2.6. While riding the bus, the Trainee will analyze environmental cues, such as hills, terrain changes, curves and turns, and use time-distance estimation. The instructor will provide feedback as to the types of cues which might be useful for becoming familiar with a given route and maintaining orientation. For continued practice, the Trainee and instructor will use buses together until the Trainee is able to function inde-

pendently. Concurrently, discuss remedies to situations such as the driver not stopping at the requested stop, or a change of bus drivers during a given trip. Various bus stops, starting points, destinations and the use of transfers will be provided during these experiences.

C.2.7. The Trainee will plan and execute one-way bus trips with the instructor following by car. On the return trip in the instructor's car, they will evaluate the trip.

Note: *A mobility assistant can be utilized by riding the bus without the Trainee's knowledge. The instructor can then question the assistant to determine if the Trainee applied the learned procedures.*

C.3.0. Suggested Experiences for Further Evaluation

C.3.1. The Trainee will have time provided within his schedule so that he can plan and execute independent trips to business areas and shopping malls where he will locate objectives and transact business. Upon completion, he will submit reports to the instructor and discuss his plans, trips, and reports for the purpose of evaluation.

C.3.2. The Trainee will use buses throughout the remainder of his training in fulfilling Techniques of Daily Living, Household Arts, and Leisure Time Instruction assignments and/or activities. He will also use them to travel to and from his home on weekends.

MY PERIPATOLOGIST HAS NOT TOLD ME WHAT TO DO WITH THE BUS AFTER I CATCH IT !!

UNIT VIII
BUSINESS ESTABLISHMENT TRAVEL

A.1.0. OBJECTIVE

A.1.1. The Trainee will safely and independently use revolving doors. In doing so, he will meet the following criteria:

- –locate the revolving door using correct techniques;
- –use sound identification, discrimination, selectivity and localization skills to determine safe times to approach the revolving doors;
- –approach the revolving doors using the cane and protecting arm correctly;
- –determine the position of the contacted door;
- –safely enter the revolving door, and position his cane and hand correctly; and
- –prevent the door from being pushed too quickly by other pedestrians.

A.2.0. Suggested Learning Experiences and Procedures

A.2.1. The Trainee and instructor will discuss the Trainee's past experiences with revolving doors. This discussion should include their structure, direction of movement, location in relationship to building fronts (flush or protruding), and types of buildings in which they are commonly found, i.e., offices, banks and department stores. Discuss further the importance of having prior knowledge of the structure of the door on the building front, and how frequently the door is used by the public. Explain how this information will help to determine the technique(s) for *precisely* locating the door to be used.

A.2.2. Have the Trainee travel to an establishment which has several revolving doors not frequently used by pedestrians. Then have him practice locating the revolving doors using various methods. Examples: shorelining, landmarks, distance estimation, sound localization of revolving doors in use, and recognition of travel surface changes. He will then relate the circumstances under which he would use one or a combination of localizing methods.

A.2.3. The Trainee will be shown how to safely approach the door using the cane and the free arm in a self-protective

manner; determine the position of the contacted door; use the cane to "clear" the areas between the door and the shell; enter, using the cane properly; position the hand and cane; and exit the revolving door using cane skills.

A.2.4. The Trainee will practice locating, approaching, and using revolving doors under non-congested and simulated congested conditions. Further, the Trainee will experience contacting the door in various positions so that he gains sufficient practice in determining his position in relationship to the door. This is necessary in order for the Trainee to develop the ability to make decisive moves quickly, thereby allowing him to proceed efficiently.

A.2.5. The Trainee will practice approaching, locating and using unfamiliar revolving doors having increased pedestrian use.

A.3.0. Suggested Experiences for Further Evaluation

A.3.1. The Trainee will independently walk a given route in a business area and locate revolving doors in an unfamiliar

business establishment. He will locate and use the revolving doors to enter and exit the business establishment, and transact business within. On route to and from the business establishment, he will apply learned cane and travel skills and maintain his orientation. While transacting business within, he will effectively follow directions given by the instructor and/or those sought from the public, apply shopping, money handling, spoken communication and/or handwriting skills while making inquiries and/or purchases, apply learned indoor travel skills and maintain his orientation.

A.3.2. Throughout the remainder of his training, the Trainee will safely, independently and efficiently use revolving doors during lessons and while on independent trips.

B.1.0. OBJECTIVE

B.1.1. The Trainee will safely, independently and effectively use self-service elevators in public buildings. In doing so, he will meet the following criteria:

- –apply cane and indoor travel skills;
- –use auditory and tactual cues to locate elevators;
- –use judgement and auditory cues to locate the call button;
- –check the floor surface of the elevator to determine its presence and level;
- –seek verbal orientation or verification of panel board;
- –select desired floor;
- –verify correctness of desired floor with fellow passengers or pedestrians; and
- –check to be sure the elevator has stopped level with the selected floor before getting off.

B.2.0. Suggested Learning Experiences and Procedures

B.2.1. The Trainee and instructor will discuss the Trainee's past experiences with elevators. The discussion should include types of elevators, variations of panel boards, probable location in buildings, and safety measures regarding their use.

B.2.2. The Trainee and instructor will discuss ways in which to become familiar with panel board arrangement and be assured that he has arrived at the desired floor. The instructor will then describe the cane techniques for locating, entering and exiting elevators. The Trainee will be encouraged to memorize the arrangement of the panel board of elevators he uses regularly. Examples: apartments, businesses and doctor's office building.

B.2.3. The Trainee and instructor will go to several establishments having self-service elevators. The Trainee will locate the elevator by utilizing verbal directions from the instructor and/or those sought from the public and/or auditory cues. He will then use his judgment and possible auditory cues to determine the location of the call button.

B.2.4. He will use his cane skills to approach and locate the entrance to the elevator, and upon hearing the door open, listen for people leaving the elevator, and check the surface floor of the elevator with his cane before stepping into it. It will be explained that he should always determine the presence of the elevator floor with his cane before entering, not only to ensure that the door is open but also to determine if it is or is not level with the floor.

B.2.5. The Trainee will familiarize himself with the panel board, and verify this information with the public. He will proceed to select the button for the predetermined floor. If there are fellow passengers, he will verify his floor prior to getting off the elevator. If not, he will do so with the first available person he encounters after getting off.

B.3.0. Suggested Experiences for Further Evaluation

B.3.1. The Trainee will independently walk a given business route and locate an unfamiliar office building. He will enter the building and seek directions to a preselected office on an upper floor, as well as to the elevators, if auditory cues are unavail-

able. He will use the elevators and locate the preselected office. On route he will apply cane, sidewalk travel, street crossing and orientation skills. He will use revolving doors, if available. While seeking directions, he will apply spoken communication skills.

B.3.2. Throughout the remainder of his training, the Trainee will safely, independently and accurately use self-service elevators during his lessons and while on independent trips.

C.1.0. OBJECTIVE

C.1.1. The Trainee will locate, approach and use escalators safely, efficiently, and independently. In doing so he will meet the following criteria:

- –use cane and indoor travel skills;
- –use auditory skills to locate escalators;
- –use touch technique and/or touch and drag technique to locate steel plates of escalator;
- –quickly locate railings;
- –determine boardability of escalators;
- –determine directionality of escalators;
- –safely step on and position feet and cane;
- –use tactual information received through cane, feet, and hands to determine time to walk off; and
- –deal with unwanted offers of assistance courteously and effectively.

C.2.0. Suggested Learning Experiences and Procedures

C.2.1. Have the Trainee relate his past experiences using escalators and ascertain if the Trainee has any apprehensions about the use of such facilities. Include in the discussion the types of buildings in which escalators are commonly found and their relationship to each other from one floor level to another. As the Trainee relates his experiences, have him project as to which sensory cues he might use in order to determine the exact location of an escalator within a given establishment. This should be supplemented as needed.

C.2.2. On route to a multi-level establishment with escalators, describe how auditory cues can be used to locate escalators, and indicate the techniques to be used for approaching,

determining boardability, determining direction, boarding, and exiting from escalators.

Note: *The escalators selected for initial instruction should be relatively free of pedestrians in order to minimize frequent interruptions.*

C.2.3. Within the establishment have the Trainee practice, under supervision, walking in the vicinity of the escalator and distinguishing the sound of the moving escalator from other environmental sounds. When he is proficient in this interpretation, have him use the touch technique and/or the touch and drag technique and practice distinguishing the metal surface plate at the entrance to the escalator and compare this to the regular floor surface. He will then be shown how to locate the railing and determine the boardability of the escalator. He will practice walking from various distances to the escalator, distinguishing its sound, locating its entrance, identifying the surface plate, and determining boardability.

C.2.4. Within the entrance to the escalator, the Trainee will be shown how to determine the directionality of the escalator by the use of auditory cues and/or his cane and then practice this. He will subsequently be shown and practice maneuvering his feet and cane in preparation for boarding. He will step onto the escalator, and position his feet and cane while moving on the escalator. These initial experiences will be conducted under close supervision of the instructor with feedback being provided as needed.

Note: *The use of ascending escalators is highly recommended for initial instruction in order to minimize any apprehensions a given Trainee might have concerning the use of these facilities.*

C.2.5. The Trainee will then practice locating, approaching boarding, riding, and exiting from escalators moving from one floor to another. As he becomes confident in his ability he will practice applying these skills in a more populated establishment, and effectively deal with unwanted offers of assistance from the public.

C.3.0. Suggested Experiences for Further Evaluation

C.3.1. The Trainee will independently walk a given route and locate an unfamiliar office building. He will enter the building through the revolving doors if they are available. He will locate and use escalators. He will seek directions from the public to a preselected office on an upper floor. On route, he will apply cane, sidewalk travel, street crossing and orientation skills. While seeking directions and dealing with unwanted offers of assistance, he will apply spoken communication skills. Upon his arrival at the preselected office, he will relate his route to the office and state his route reversal in order to return to the starting point.

C.3.2. Throughout the remainder of his training, the Trainee will safely, effectively and independently make use of escalators during lessons and while on independent trips.

D.1.0. OBJECTIVE

D.1.1. The Trainee will integrate learned techniques and skills while safely and independently traveling within multi-level shopping malls. In doing so he will meet the following criteria:

- –apply cane and indoor travel skills;
- –determine his entry point by name and/or store identification and level;
- –obtain functional directions from the public to unfamiliar objectives;
- –use sensory cues effectively for locating businesses and clerks within;
- –locate, approach, and use revolving doors, escalators, elevators and/or stairs;
- –deal with the public courteously and effectively; and
- –maintain his orientation.

D.2.0. Suggested Learning Experiences and Procedures

D.2.1. The Trainee and instructor will discuss the Trainee's shopping habits and experiences within indoor shopping malls. The discussion should include the accessibility and proximity of indoor malls to the Trainee's residence and their similarities such as, number of floors, shapes, structure, balconies, types of stores generally found in malls, location of stairs, escalators, elevators and exhibits.

D.2.2. The instructor will identify the shape of the mall and the location of the multi-level stores contained within. A tactual map is useful for identifying major businesses. On route to the mall, the Trainee and instructor will discuss methods of self-orientation which can be applied to malls.

D.2 3. At the mall, the Trainee's starting point will be identified by store name or entrance, as well as his position in relation to the rest of the mall. The Trainee will use auditory cues to determine which level he is on at the mall. He will then be directed to walk the length of the mall to determine its length and to analyze the environment. He will use appropriate cane skills to avoid pedestrians and obstacles. On route, the Trainee will note tactual, auditory and olfactory cues as they present themselves and discuss their possible applications with the instructor. Examples: auditory recognition of escalator location, reflected sound indicating recessed entries, recognition of bakeries and shoe stores by aromas, recognition of carpeting and other travel surface changes.

D.2.4. After walking the length of the mall, the Trainee will estimate its length. He will then be instructed to cross the width of the mall and return to his starting point, walking the length of the mall on the opposite side. He will be further instructed to stop at each recognition of a sensory cue which he interprets as a primary or secondary orientation landmark. Examples: dogs barking and birds chirping–pet shop; aroma of freshly popped corn–snack stand; a series of cash registers being used at a store front–discount department store; the odors of shampoo, hair tonic and hair spray–beauty and barber shops.

D.2.5. Upon returning to his starting point, the Trainee will

state his general impression of the mall and name the types of stores he has recognized solely by the use of sensory cues. The Trainee and instructor will then discuss possible methods to use to confirm such cues, and how a relative or friend can be used for orientation to a similar mall. The instructor will then demonstrate using the same level the Trainee has just been over.

D.2.6. The Trainee will then be instructed to locate and use escalators to another level where he will seek and follow verbal directions from the public to specified unfamiliar objectives. He will locate the objectives utilizing all appropriate skills learned to date, transact business within, and relate to the instructor the routes and sensory cues noted.

D.2.7 The Trainee will then travel throughout the new level of the mall verifying his own sensory intake by either going into stores or by asking the public for confirmation. Upon completion of his self-orientation, the Trainee will relate his interpretations to the instructor who will provide appropriate feedback.

D.3.0. Suggested Experiences for Further Evaluation

D.3.1. The Trainee will apply learned skills to plan and execute an independent trip to an indoor shopping mall. Included in his plans will be all the information necessary in order to use public transportation. While traveling to and from the mall he will apply cane, sidewalk, street crossing, and public transportation skills. Upon his arrival at the mall, he will use his braille watch in order to keep track of the time so as not to miss his return bus. Further, he will apply shopping, money handling, spoken communications, and/or handwriting

skills when making inquiries and/or purchases.

D.3.2. Throughout the remainder of his training, the Trainee will appropriately apply skills and techniques learned while working within indoor shopping malls and will safely, independently and with poise travel to, within, and from the malls for his own personal shopping needs.

E.1.0. OBJECTIVE

E.1.1. The Trainee will integrate previously learned techniques and skills while safely and independently traveling within large multi-level department stores. In doing so he will meet the following criteria:

- –apply cane and indoor travel skills;
- –apply orientation skills;
- –identify and locate landmarks;
- –locate, approach and use revolving doors, escalators and/or elevators and/or stairs;
- –establish his entry point through interpretation of sensory cues;
- –obtain functional directions from the public to unfamiliar objectives;
- –locate desired departments;
- –locate clerks; and
- –deal with the public courteously and effectively.

E.2.0. Suggested Learning Experiences and Procedures

E.2.1. The Trainee and instructor will discuss the Trainee's past shopping habits and his experiences with department stores. He will determine which previously learned orientation, mobility, techniques of daily living, spoken communication, sensory training, and visualization skills can be applied in systematically orienting himself to an unfamiliar department store. The frequency of planned usage of the store and departments within will be discussed in relation to the degree of orientation needed. Characteristics common to department stores include: multi-level construction; dimensions which can include one square block or more in area coverage; many en-

trances and exits on different streets; escalators and elevators in various locations; and departmental organization by floors and within floors.

E.2.2. The Trainee will then be instructed in various means by which he can familiarize himself with the size of large department stores. Examples: verbal description, walking the outside and/or inside perimeter of the building.

E.2.3. The Trainee will be familiarized with the ground level of a department store after he has located the store and entered through revolving doors. The instructor will identify the walls by compass point, bordering street names and departments. The Trainee will note useable orientation cues for easy identification of the entrance point used. Examples: travel surface, aroma of perfume, and auditory recognition of revolving door.

E.2.4. The Trainee and instructor will then proceed through an aisle, either human guide or beside each other. The Trainee will be instructed to stop at each stationary cue which can serve as a landmark. Examples: intersecting aisles with unique travel surfaces, escalator sounds, elevator sounds, aroma of candy at candy counter, and numerous clocks ticking at a clock department.

E.2.5. Randomly walk together through the ground level of the department store and have the Trainee continue to note useful landmarks as well as those which are not useful. Example: cash register might be useful when seeking a clerk, but not as a landmark to recognize a department. As this continues, the Trainee will maintain his orientation to the street walls by compass point and/or bordering street names. He will identify intersecting aisles by tracing moving sounds of pedestrians. Following this, have the Trainee independently walk throughout the ground level using appropriate cane skills identifying departments, accurately turning into aisles, and maintaining orientation.

E.2.6. The Trainee will then practice independently locating departments on the ground floor or other floors based on verbal directions from the instructor. He will appropriately, safely, and independently utilize escalators and/or elevators. He will then locate other departments on other floors by seeking and effectively using verbal directions from the public.

E.3.0. Suggested Experiences for Further Evaluation

E.3.1. The Trainee will locate and enter a department store, seek and effectively use verbal directions to an unfamiliar department, transact business and return to his starting point. While on route to the department store he will use cane, sidewalk travel, street crossing and orientation skills. While in the department store, he will apply shopping, money handling, handwriting, and spoken communication skills for making inquiries and/or purchases. Upon his return to his starting point, he will verbally evaluate his performance and describe the location of the now familiar departments in relation to his point of entry into the department store, as well as departments with which he was previously familiar.

E.3.2. The Trainee will safely and independently travel throughout an unfamiliar department store, and become oriented to those departments which most often serve his needs.

E.3.3. The Trainee will safely and independently travel to, within, and from public transportation terminals such as bus depots, airports and train stations. He will orient himself to the extent necessary to obtain correct information regarding schedules, cost, and location of boarding areas. He will locate the boarding areas and verify his gate by asking for verification from the public.

E.3.4. The Trainee will safely and independently travel to, within and from large hotels. He will orient himself to public areas of the hotel, such as the reservation desk, elevators, rest rooms, and restaurants.

UNIT IX
METROPOLITAN TRAVEL

A.1.0. OBJECTIVE

A.1.1. The Trainee will analyze large volumes of vehicular traffic by sound and apply this skill to traveling on sidewalks and crossing streets in a metropolitan area. In doing so, he will meet the following criteria:

- –determine approximate width of sidewalks;
- –maintain a straight line of travel;
- –determine the number of lanes and direction of traffic flow on both parallel and perpendicular streets;
- –recognize the presence of perpendicular streets auditorily, prior to contacting the corner curb with his cane;
- –accurately analyze each intersection encountered;
- –correctly identify the cue cars and cross streets at the correct time within the crosswalk area;
- –apply cane and sidewalk skills; and
- –maintain his orientation.

A.2.0. Suggested Learning Experiences and Procedures

A.2.1. Discuss the characteristics unique and/or common to metropolitan areas. The Trainee will be directed to draw such information from his past experiences. Examples: heavy and congested slow moving vehicular traffic in the shopping areas; heavy and fast moving vehicular traffic on the outer boundaries; heavy pedestrian traffic which varies in density and speed through various areas and times of day; greater possibility of six or more lane roads; higher noise level as sounds reflect from buildings; greater likelihood of one-way streets; policeman controlled and walk-sign controlled intersections, and probable pedestrian interference. The Trainee will project which skills and techniques he has learned to date that will be required while traveling in metropolitan areas, and the instructor will supplement information as necessary.

A.2.2. The Trainee will be familiarized with the street names, direction, and patterns in the metropolitan area to be used. He can use his braille or audio device skills to record the information given by the instructor. The instruction should in-

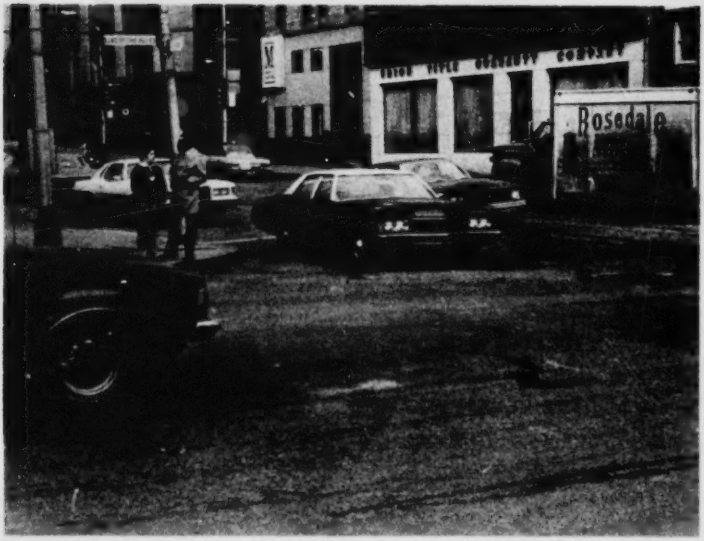
clude any unusual or organizational characteristics of the city plan such as: circular or triangular grid, division of north-south streets being names, and east-west being numbers, or north-south being avenues; and east-west being streets. A tactual map can also be used to aid the Trainee in visualizing and gaining a conceptual awareness of the city plan.

A.2.3. While on route to the metropolitan area the instructor will identify a six to eight block straight route that they will travel. The Trainee will memorize this, naming all the intersecting streets to be crossed. They will then discuss where the route is in relation to the rest of the city.

Note: *Use a straight route on which the parallel street has six moving lanes of traffic and little pedestrian traffic such as those commonly found near the perimeter of a given metropolitan area. Such a route is ideal because it provides the Trainee with the opportunity to adjust to the heavy traffic sounds without having to deal with frequent interruptions from the public, or be concerned with utilizing auditory cues provided by pedestrians.*

A.2.4. Upon arrival in the metropolitan area the Trainee will walk the route with the instructor. He will first analyze his parallel street as to the number and direction of moving lanes and determine whether there are parking lanes. As they walk he will indicate sensory cues noted for verification and explanation by the instructor.

A.2.5. The Trainee will be directed to inform the instructor as soon as he distinguishes an intersection ahead. He will then estimate his distance from the corner and identify the intersect-



ing street by name. They will approach each intersection in this manner. The Trainee will analyze them as to their shape, direction of traffic, number of moving and parking lanes and control, and estimate their width. The Trainee will then describe the appropriate method to use for crossing each. If light controlled, he will identify his cue cars and direct the instructor as to the appropriate time to cross.

A.2.6. As they walk, the Trainee will relate any auditory, tactual or olfactory changes he recognizes. He will project the

causes of the changes when possible. The instructor will provide verification and/or feedback as well as alert the Trainee to the more obvious cues which he might not have recognized.
A.2.7. When they reach the destination the Trainee will be instructed to reverse the route and walk it independently, concentrating on using parallel traffic in order to maintain a straight direction of travel. Intermittently along the route the instructor will question the Trainee about his analysis of his environment including identification and analysis of intersections.
A.2.8. The Trainee will walk several similar routes with directional changes. He will also be required to locate specific objectives. There will be frequent confirmations, identifications, and feedback provided by the instructor until the Trainee becomes adjusted to the heavy vehicular sounds, and gains confidence in his ability to recognize, identify, select, discriminate, localize and trace sounds.

Note: *These experiences should be repeated until the Trainee's anxiety level is at a minimum which might be demonstrated through his statements, a relaxed manner, receptivity to sensory cues, and accuracy of interpretations thereof.*

A.3.0. Suggested Experiences for Further Evaluation

A.3.1. The Trainee will independently walk an instructor-specified route having heavy vehicular and little pedestrian traffic within a metropolitan area. While doing so he will answer questions intermittently asked by the instructor regarding his sensory interpretation and orientational awareness. The Trainee will locate an objective incorporating his use of dis-

tance estimation and recognition of reflected sound. He will enter the establishment through revolving doors, seek verbal directions to a specific location within the building, and use escalators or elevators to get to the desired floor. He will transact business within, applying the appropriate communication and techniques of daily living skills.

A.3.2. Meeting the criteria, the Trainee will walk several instructor-determined routes having heavy vehicular and little pedestrian traffic within the metropolitan area. He will locate objectives along the routes and make inquiries and/or purchases applying the appropriate skills. Upon completion of each route he will estimate the time spent walking the route, discuss orientation aspects and evaluate his performance with the instructor. He will then determine and walk an alternate return route. Upon completion he will determine which of the two routes were the most efficient and evaluate his performance.

A.3.3. Several specific objectives will be identified by the instructor as well as the starting point. The Trainee will determine the most efficient and direct route from the starting point to each of the objectives. He will then walk the route and locate each objective. Upon completion he will determine an alternate return route and execute same. Upon his return he will relate his experiences including any dealings with the public, situations which required problem solving and analyses of new areas. The instructor will provide feedback accordingly.

B.1.0. OBJECTIVE

B.1.1. The Trainee will analyze pedestrian movement and activity by sound and apply this skill to traveling on sidewalks and crossing streets in a metropolitan area. In doing so, he will meet the following criteria:

–determine the presence and speed of moving crowds;
–determine the presence of crowds at intersections;
–use crowd and vehicular movement in his correct analysis of intersections;
–maintain a straight line of travel;
–adjust his cane and speed according to crowd movement;
–determine approximate width of sidewalks;

–cross streets at the correct time and within the crosswalk area;
–demonstrate appropriate flexibility between using movement of vehicular and pedestrian traffic;
–apply cane and sidewalk skills;
–determine presence of exits and entrances to buildings through tracing pedestrian movement;
–maintain his orientation; and
–deal with the public courteously and effectively.

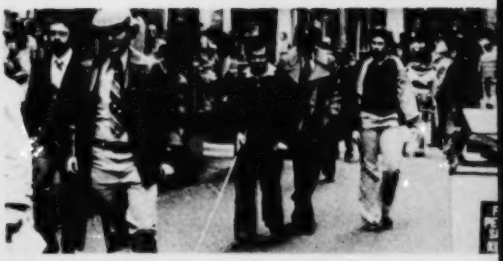
B.2.0. Suggested Learning Experiences and Procedures

B.2.1. While on route to the metropolitan area the instructor will identify the route to be used and the Trainee will commit it to memory. They will then discuss some of the experiences the Trainee has had to date in dealing with the public as well as any exposure he has had to crowds during past learning experiences in shopping centers or malls. Then discuss how crowds can be used for sidewalk travel and street crossings.

B.2.2. Upon arrival at the starting point the Trainee will verbally review the route. He will then walk the route applying learned skills and analyzing intersections encountered. As he nears an increase in pedestrian flow, the instructor will further explain and exemplify how to use the cane, adjust his speed, interpret pedestrian rate of speed, and maintain a centered position on the sidewalk. It will be pointed out that the centered position is the most advantageous when not locating a specific objective as it helps to eliminate contact with pedestrians entering and exiting from buildings. Further, frequent contact with curb side obstacles such as poles and sign posts will also be avoided.

B.2.3. At the first crowded intersection, the Trainee will "box" this and be shown how to use the crowd to: further verify the center of the crosswalk area in conjunction with some of the previously learned methods; determine when to cross by recognizing crowd movement in conjunction with the flow of traffic; and maintain a position within the crosswalk area while crossing.

B.2.4. The Trainee will continue to walk the route utilizing pedestrian flow to maintain a straight direction of travel and as



a supplement in analyzing intersections. He will continue to practice using crowds for street crossings. As walk-sign controlled and policeman controlled intersections are encountered, the Trainee will be shown how to respond appropriately.

B.2.5. He will continue walking instructor-determined routes within the heart of the metropolitan area in order to develop appropriate flexibility and accuracy in his use of vehicular and pedestrian traffic. The routes will become more complex in regard to directional changes, shape, size and control of inter-

sections, and length. They will have increasing amounts of vehicular and pedestrian traffic and will be negotiated during various times of the day. In addition, he should locate various businesses, such as specialty shops, offices, and departments within large department stores. The objectives should be located using various sensory cues such as reflected sound, distance estimation, travel surface recognition and identification, and direct sound. The use of escalators, elevators and revolving doors should also be incorporated during the experiences.

B.3.0. Suggested Experiences for Further Evaluation

B.3.1. Meeting the criteria the Trainee will travel a given unfamiliar route to an unfamiliar objective as well as an alternate return route within the shopping district of the metropolitan area. When he locates the objective he will enter, seek directions to a particular department or office and make inquiries and/or purchases, applying the appropriate skills.

B.3.2. Given a starting point and the location of an objective, within the metropolitan area, the Trainee will plan a route

to and from the objective. He will then travel the route.

B.3.3. The Trainee will be given a starting point and a particular objective within the metropolitan area, which is at least ten blocks away, as well as a purchase assignment. The Trainee will then seek and appropriately use verbal directions from the public to the objective, transact business within and return to his starting point by a self-determined route. Upon completion he will evaluate his performance and analyze the two routes used.

C.1.0. OBJECTIVE

C.1.1. The Trainee will assume the responsibility for his own safe and independent travel to, and participation in, activities or events within metropolitan areas. In doing so, he will meet the following criteria:

- –obtain accurate information regarding public transportation schedules, fares and stops;
- –apply cane and sidewalk travel skills;
- –apply street analyzation and crossing techniques;
- –apply learned sensory skills in order to solve problems;
- –apply bus travel skills;
- –apply spoken communication skills;
- –apply eating, shopping, handwriting and money handling skills;
- –apply leisure time activity skills; and
- –apply learned orientation skills.

C.2.0. Suggested Learning Experiences and Procedures

C.2.1. Discuss some places to go and things to do within the metropolitan areas which are of interest to the Trainee. Examples: sporting events, shopping, performing arts, museums, exhibits, one-day workshops in crafts, ethnic festivals, and church bazaars. The instructor will then assign the Trainee to plan independent trips into the metropolitan area and direct him to incorporate his selected activities into his trips.

Note: *The Trainee will be scheduled so that he has sufficient time necessary to travel to and from the metropolitan area using public transportation and to perform a combination of activities such as shopping and having lunch at a restaurant;*

shopping and then taking a bus (using a transfer) to a stadium for a baseball game; or having lunch and then touring a museum.

C.2.2. The Trainee will report to the instructor at least two days prior to each independent trip so that the plans can be checked for accuracy. The Trainee will include in his plans: travel arrangements including boarding and disembarking areas, times of boardings and arrivals, and cost; schedules, if necessary, for tours, performances, exhibits and cost of same; stores to be visited and/or items desired to purchase; information and self-familiarization exercises planned such as going to unfamiliar public transportation facilities which he may be planning to use at a future date; possible routes to be used if specific objectives are within familiar areas; and estimated time needed for completion of the entire trip and activity.

C.2.3. The Trainee will then execute his plans according to schedule. The instructor will not travel with the Trainee, but can observe him from a distance throughout so as to provide appropriate feedback upon his return. When the Trainee returns he will either meet with the instructor or prepare a written report. They will then discuss the planning, execution, modifications, as well as the Trainee's feelings regarding the trip.

Note: *These learning experiences should be repeated using different objectives, activities and time schedules, until the Trainee consistently plans his trips efficiently, and is confident in his abilities.*

C.3.0. Suggested Experiences for Further Evaluation

C.3.1. The Trainee will independently and effectively plan and safely execute trips to, within and from a metropolitan area. He will make these trips on weekends and in the evenings. He will report to the instructor upon completion of the trip either verbally or by recording a summary on tape, in braille or in handwriting. In his report, he will accurately describe in detail his experiences, the routes, and give an evaluation of his performance. Some of the possible objectives that can be used are: (a) shopping in unfamiliar department stores; (b) movies and/or plays; (c) exhibits, museums, planetar-

iums; (d) doctor's appointments; (e) visiting or meeting friends for lunch; or (f) job interviews.

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UNIT X
COMMERCIAL NON-SIDEWALK TRAVEL

A.1.0. OBJECTIVE

A.1.1. The Trainee, after prior orientation, will travel safely and independently along commercial highways, locate objectives, and maintain his orientation. In doing so he will meet the following criteria:

–identify road and berm surfaces;
–maintain a safe distance from moving traffic;
–detect and safely negotiate obstacles and drop-offs;
–safely negotiate driveways and parking lot entrances;
–determine cross-walk areas and cross streets safely;
–analyze and correctly determine routes and intersections that are safe and unsafe for pedestrian use; and
–obtain functional orientation from sighted persons.

A.2.0. Suggested Learning Experiences and Procedures

A.2.1. Have the Trainee visualize, recall and describe commercial highways in his home area, and identify objectives along those highways. In his description he should include the type of road surfaces, shorelines, shoulders, and types of entrances to the business along the highways. He should recall the common manner by which pedestrians gain access to these places. Examples: public transportation, private car, or by walking.

A.2.2. Characteristics of commercial highways which have not been mentioned by the Trainee should be discussed and these might include two to four lanes of moving traffic, posted speed limits of 45 to 55 mph, shopping centers and their parking lots, gasoline stations, accesses to fast food chain stores, multi-lane intersections, and industrial complexes. As these characteristics are given the Trainee will suggest orientation cues available which would include traffic movement; odors from roadside restaurants and gasoline stations; automobiles and/or pedestrians exiting from parking lots; and travel surface differences.

A.2.3. As this discussion continues, verbally review the non-sidewalk techniques and skills which the Trainee has experi-

enced and applied in residential/suburban, and rural non-sidewalk areas, and have the Trainee project which techniques and skills he will need to transfer to commercial highways. Subsequently, the instructor will describe the conditions under which it is unsafe for *any* pedestrian to walk along highways. These conditions include: no well-defined berm; travel area too close to moving traffic; intermittent berm along the road; and ill-defined or non-existent shorelines. Take the Trainee to areas where these conditions exist for further emphasis.

A.2.4. The Trainee and instructor will go to a commercial highway having a large volume of traffic and business establishments along the highway. On route they will discuss the need to obtain prior orientation to the proposed area of travel and the rationale thereof. Upon arrival, the Trainee will be directed to walk along the side of the highway most accessible to pedestrians. As he walks he will adapt his cane techniques as required by the varying travel surfaces. Further, he will practice determining when it is safe to walk on the road and when it is safer to walk beside the road, on the berm. As shorelines,

obstacles, and drop-offs are contacted he will deal with these appropriately with feedback from the instructor.

A.2.5. The Trainee will practice analyzing available sensory cues and determining the type of businesses he passes along the route. Examples: vehicles turning into and exiting from parking lots; shopping carts being pushed or pulled at markets; gas station bells ringing; public address systems used in car sales lots; odors from roadside restaurants or produce markets; and gradient changes at parking lot entrances. Feedback will

be given as needed and the Trainee will project how such an analysis is applicable to gaining orientation to similar areas.

A.2.6. The Trainee will continue to walk along commercial highways until he is able to maintain contact with available shorelines, maintain a safe distance from moving traffic, and interpret his environment.

A.2.7. The instructor will then systematically orient the Trainee to a given route along the highway that does not involve crossing intersections. The orientation should include

establishing landmarks, methods for crossing parking lot entrances and driveways, and methods for leaving the highway to locate a specific objective. The Trainee will verbally review this route and travel back and forth independently several times with feedback from the instructor. Using the instructor's orientation method as a model, the Trainee will project as to how he can obtain the same or similar information from another sighted person. This will be supplemented as needed.

A.2.8. The Trainee will then be instructed in how to safely negotiate a parking lot in order to get to a building set off from the highway. He will be directed to listen to vehicles within the lot to determine the location of moving lanes, and utilize sound localization and reflected sound to determine the position of the building. It will be pointed out that sometimes it is safer to walk around the perimeter of the lot than to walk a direct route which might be more hazardous. Various parking lot designs will be discussed and the Trainee will practice negotiating some of these.

A.2.9. Have the Trainee review techniques and skills re-

quired for crossing streets in metropolitan areas, and then have him analyze various types of intersections located along commercial highways. These experiences should be conducted at intersections where it is safe for pedestrians to cross, and at those where it is unsafe for pedestrians to cross. The rationale for each of these conditions will be explained and exemplified by the instructor. The Trainee will then apply street crossing skills, and integrate these into routes determined by the instructor.

A.2.10. Select a route which will involve the application of all skills learned by the Trainee. The instructor will then role-play as a sighted acquaintance, and he and the Trainee will walk the route to a given objective. On route, the Trainee will ask appropriate questions and, through sensory analysis, obtain a functional orientation to and from that objective. He will be expected to obtain information regarding significant landmarks, appropriate crossing lanes at parking lots, driveways, and intersections, and accurately interpret his environ-

ment. He will then travel the route to and from the objective independently under the instructor's observation. Upon completion, he and the instructor will evaluate his total performance. This experience will be repeated over more complex routes as the instructor continues to role-play. In addition, the instructor will select routes that are not safe for pedestrian travel and the Trainee will be expected to come to this conclusion during or after the orientation process.

A.3.0. Suggested Experiences for Further Evaluation

A.3.1. Have the Trainee travel the area used for instruction. He will walk a route crossing several streets and locate several objectives not previously used. This route will require the negotiation of parking lots to businesses. Upon locating the specified businesses, he will transact business within.

A.3.2. The Trainee will be oriented to an unfamiliar commercial highway by an orientation and mobility assistant who will role-play as a sighted acquaintance. He will ask questions to verify his sensory intake in order to gain a functional orientation to the given area. Upon completion of the orientation he will relate his analysis to the mobility specialist and determine whether it was safe or unsafe for pedestrian use. If it is determined that the area is safe, the Trainee will travel the route independently under the instructor's observation.

APPENDIX –PROGRESS CHART

Mobility

Date_____

The following pages give a detailed report on

_____ _____for each of the skill courses that he/she took while in training at The Greater Pittsburgh Guild for the Blind. In addition, pertinent comments by the course instructor are included for each course. The rating system is as follows:

0—No instruction given.
1—Independent, no limitations.
2—Requires more practice, need not be supervised.
3—Requires additional supervised practice and instruction.
4—Received instruction. The prediction is that the individual will always need supervision and/or assistance in this activity.
5—No instruction given, is independent in this activity.

Courses Not Scheduled

Code

A. Trainee's skills proficient to meet personal needs.
B. Not scheduled at this time due to other courses being more essential.
C. Physical limitations of Trainee would interfere with the successful completion of the course.
D. Psychological limitations of Trainee would interfere with the successful completion of the course.
E. Not indicated because of sufficient and/or stable vision.
F. Trainee does not possess the necessary experiential background to participate in this course.

___ Abacus
___ Audio Device Instruction
___ Braille
___ Fencing
___ Handwriting
___ Household Arts
___ Household Mechanics
___ Kinesiatrics
___ Language Stimulation
___ Leisure Time Instruction
___ Mobility
___ Mobility Concept Development
___ Optacon
___ Sensory Training
___ Social Concepts
___ Spoken Communication
___ Techniques of Daily Living
___ Typing
___ Visualization

PROGRESS CHART (continued)

Mobility

USE OF SIGHTED GUIDES

___Grip
___Arm position
___Response to arm signals
___Body position
___Doors
___Seating
___Stairs
___Curbs
___Refuses unwanted and incorrect guiding techniques

Transfers skills to new situations: Yes___ No___
Applies skills to daily living: Yes___ No___

BASIC INDOOR ORIENTATION AND CANE SKILLS

Without cane

___Hand and forearm positions
___Trailing
___Squares-off
___Uses landmarks
___Self-orientation to rooms
___Determines relationships between rooms
___Uses tactual cues
___Uses auditory cues
___Locates objectives
___Maintains orientation
___Determines/executes alternate routes

Transfers skills to new situations: Yes___ No___
Applies skills to daily living: Yes___ No___

Diagonal Cane Technique

___Grip
___Arm position
___Cane position
___Trailing
___Turns corners correctly
___Crosses open areas
___Detects drop-offs
___Familiar stair techniques
___Uses landmarks
___Recognizes travel surface changes
___Maintains orientation
___Locates objectives
___Cane maintenance

Touch Technique

___Posture
___Grip
___Arm/hand position
___Cane position
___Arc size
___Arc height
___Quietness of touch
___Cane/feet synchronization
___Negotiates obstacles
___Interprets tactual information through the cane
___Shorelining
___Detects drop-offs
___Unfamiliar stair techniques
___Uses landmarks
___Locates objectives
___Maintains orientation

RESIDENTIAL SIDEWALK TRAVEL

Residential Blocks

___Maintains touch technique
___Makes accurate turns
___Maintains compass orientation
___Detects drop-offs
___Uses traffic
___Negotiates obstacles
___Negotiates walkways
___Negotiates driveways
___Shorelines
___Negotiates parking lot entrances
___Approach to corners
___Direction changes
___Recovers from driveways and / or parking lots
___Recognizes travel surface changes
___Uses landmarks
___Locates objectives
___Solves problems
___Maintains orientation
Transfers skills to new situations: Yes___ No___
Applies skills to daily living: Yes___ No.___

Residential Stop-Sign Controlled Intersections

Requires landmarks: Yes___ No___
Requires sighted assistance: Yes___ No___
___Maintains cane techniques
___Approach
___Analysis
___Position
___Alignment
___Uses traffic
___Starting
___Speed
___Straight crossing
___Negotiates up-curbs
___Utilizes pitch and crown
___Recovers when veers

Residential Areas

___Maintains cane techniques
___Uses sidewalk travel skills
___Determines landmarks
___Uses landmarks
___Analyzes intersections
___Uses street crossing skills
___Uses traffic
___Negotiates alleys
___Interprets environment
___Orients systematically
___Determines alternate routes
___Executes alternate routes
___Solves problems
___Locates objectives
___Maintains orientation
Transfers skills to new situations: Yes___ No___
Applies skills to daily living: Yes___ No___

RESIDENTIAL/SUBURBAN NON-SIDEWALK TRAVEL

___Maintains cane techniques
___Shorelines
___Identifies shorelines
___Determines and applies appropriate cane technique

PROGRESS CHART (continued)

Mobility

___Determines landmarks
___Uses landmarks
___Identifies travel surfaces
___Determines curvatures and street corners
___Analyzes intersections
___Determines crosswalk area
___Street crossing skills
___Uses traffic
___Interprets environment
___Orients systematically
___Locates objectives
___Solves problems
___Maintains orientation
Transfers skills to new situations: Yes___ No___
Applies skills to daily living: Yes___ No___

RURAL NON-SIDEWALK TRAVEL

___Touch-and-slide technique
___Determines and applies appropriate cane techniques
___Maintains cane techniques
___Shorelines
___Identifies travel surfaces
___Identifies shoreline surfaces
___Identifies road curvatures
___Distance estimation
___Determines safest travel position
___Determines intersections
___Determines safest crossing areas
___Street crossing skills
___Stays on footpath
___Determines/uses landmarks
___Interprets environment
___Obtains functional orientation
___Locates objectives
___Maintains orientation
Transfers skills to new situations: Yes___ No___
Applies skills to daily living: Yes___ No___

LIGHT CONTROLLED INTERSECTIONS

Requires landmarks: Yes___ No___
Requires sighted assistance: Yes___ No___
___Maintains cane techniques
___Maintains sidewalk travel skills
___Approach
___Position
___Alignment
___Uses traffic
___Analyzes intersections
___Identifies/localizes cue cars
___Starting
___Straight crossing
___Recognizes inappropriate cues
___Response to approaching vehicles while crossing
___Recovers when veers
___Determines when to use crowds
___Uses crowds for positioning
___Uses crowds for alignment
___Uses crowds for starting
___Locating/uses landmarks

BUSINESS AREA TRAVEL

Business Areas

___Maintains cane techniques
___Uses sidewalk travel skills
___Analyzes pedestrian activity
___Determines pedestrian congestion
___Negotiates pedestrian congestion
___Uses reflected sound cues
___Negotiates parking lot entrances
___Analyzes intersections
___Negotiates street crossings
___Negotiates parking lots
___Interprets his environment
___Determines/uses landmarks
___Systematic self-orientation
___Deals with unwanted offers of assistance
___Obtains functional directions
___Locates objectives
___Solves problems
___Uses business establishments
___Determines alternate routes
___Executes alternate routes
___Maintains orientation

Transfers skills to new situations: Yes___ No___
Applies skills to daily living: Yes___ No___

Public Transportation

___Obtains pre-information
___Plans time efficiently
___Determines correct bus
___Approach
___Boards
___Analyzes environment while riding
___Exits
___Uses transfers
___Solves problems
___Maintains orientation

Transfers skills to new situations: Yes___ No___
Applies skills to daily living: Yes___ No___

BUSINESS ESTABLISHMENT TRAVEL

Revolving Doors

___Maintains cane techniques
___Locates
___Approach
___Enters
___Cane/hand position
___Exits

Transfers skills to new situations: Yes___ No___
Applies skills to daily living: Yes___ No___

Self-Service Elevators

___Maintains cane techniques
___Locates elevators
___Locates call buttons
___Checks level
___Enters
___Familiarizes with panel board
___Communicates with pedestrians

PROGRESS CHART (continued)

Mobility

Self-Service Elevators (cont.)

___Selects desired floor
___Exits
___Verifies floor number
Transfers skills to
new situations: Yes___ No___
Applies skills to
daily living: Yes___ No___

Escalators

___Maintains cane skills
___Locates
___Approaches
___Touch-and-drag technique
___Determines boardability
___Determines direction
___Boards
___Cane/feet/hand positions
___Timing
___Exits
___Deals with unwanted offers of assistance
Transfers skills to
new situations: Yes___ No___
Applies skills to
daily living: Yes___ No___

Malls/Department Stores

___Maintains cane skills
___Determines entry point
___Determines/negotiates pedestrian congestion
___Determines aisles
___Determines/uses landmarks
___Systematic self-orientation
___Obtains functional directions
___Locates objectives
___Locates departments
___Locates clerks
___Determines/executes alternate routes
___Maintains orientation
___Deals with public
Transfers skills to
new situations: Yes___ No___
Applies skills to
daily living: Yes___ No___

METROPOLITAN TRAVEL

___Maintains cane techniques
___Uses sidewalk travel skills
___Analyzes intersections
___Negotiates street crossings
___Determines walk signs
___Determines when to use crowds
___Uses crowds for positioning within crosswalks
___Uses crowds for alignment at intersections
___Uses crowds for determining step-off time
___Maintains straight line of direction
___Interprets environment
___Obtains functional directions
___Determines/uses landmarks
___Determines/executes alternate routes
___Deals with public
___Locates objectives
___Solves problems
___Remains oriented
___Plans independent trips

PROGRESS CHART (continued)

Mobility

METROPOLITAN TRAVEL (cont.)

____Executes independent trips
Transfers skills to
new situations: Yes____ No____
Applies skills to
daily living: Yes____ No____

COMMERCIAL NON-SIDEWALK TRAVEL

____Determines/uses appropriate cane techniques
____Maintains cane techniques
____Shorelines
____Identifies travel surfaces
____Identifies shorelines
____Determines/uses safest travel position
____Determines/uses landmarks
____Interprets sensory cues
____Analyzes/negotiates parking lots
____Locates objectives
____Analyzes intersections
____Determines safe and unsafe intersections
____Negotiates intersections
____Obtains functional orientation
____Determines safe/unsafe travel areas
____Maintains orientation
Transfers skills to
new situations: Yes____ No____
Applies skills to
daily living: Yes____ No____

ORIENTATION AND MOBILITY
INITIAL INTERVIEW

TRAINEE: _____ GROUP # ___ DATE _____

1. Previous travel habits _____

_____

_____

2. Current mobility mode _____

_____

3. Present level of independence _____

_____

4. Description of house _____

_____

_____

_____

5. Description of neighborhood _____

_____

_____

_____

6. Description of community _____

_____

_____

_____

_____

7. Previous training [locations(s), dates(s)]_____

_____

_____

_____

8. Highest achievement level_____

_____

9. Trainee's stated goal(s)_____

_____

_____

_____

COMMENTS: _____

_____

_____

_____

_____

_____

_____

Mobility Specialist

ORIENTATION AND MOBILITY DEPARTMENT
VISION EVALUATION

TRAINEE_____DATE_____LOCATION_____

ENVIRONMENTAL CONDITIONS (DAY/NIGHT) _____

_____ _____

X-DAY **MAXIMUM VISUAL DISTANCE** O-NIGHT

	0'-5'	0'-20'	0'-30'	0'-50'	0'-100'	0'-200'	0'-300'	0'-∞
Sdwlk. Objs.								
Desc. Stairs								
Asc. Stairs								
Appr. Corner								
Opp. Corner								
Crosswalks								
Stat. Cue Cars								
Mov. Veh.								
Stop Signs								
Tra. Lights								
Comm. Signs								
Str. Signs								
Buildings								
House Nos.								
Pedes.								
Bus Nos.								

BEST ACUITY AREA (central, peripheral, etc.)_____

COLOR VISION:___YES___NO

NON-PREFERRED LIGHTING_____

PREFERRED LIGHTING_____

VISUAL AID(S) USED:_____

CONTRAST PERCEPTION:___YES___NO

FINDINGS: _____

_____

_____

Mobility Specialist

GLOSSARY–MOBILITY

ALIGNMENT—The direction one is facing in relation to the opposite corner.

AUDITORY SENSE—The sense of hearing.

BERM—The edge of the road which is generally of a different travel surface than the road. Interchangeable with the term "shoulder."

BOX—A term used to define the process of consecutively crossing to each corner or pedestrian crossing point at a given intersection.

CLEARING—Using the cane or hand to determine that the intended line of travel (or area) is free of obstacles and/or drop-offs.

COMMERCIAL NON-SIDEWALK AREA—An area in which there are no public sidewalks. Generally a road which has a series of business establishments set-off from the roadway which are, in many instances, driven to by customers.

DIRECT SOUND—A sound which travels directly to the listener's ear, and is not blocked by obstacles between the sound and the listener.

DISTANCE ESTIMATION—The ability to determine, through the combination of past experiences, auditory, tactile, kinesthetic, and/or time cues, the amount of space between objects and self, sounds and self, objects to sounds and objects to objects.

DROP-OFF—The point at which the travel surface either discontinues completely, such as a curb or ditch, or changes to a downward direction, such as a driveway ramp.

ENVIRONMENTAL CUES—See sensory cues.

FEEDBACK—The verbal exchange between the Trainee and instructor designed to prompt, encourage, correct, modify, confirm, strengthen, and reinforce the Trainee's abilities.

FUNCTIONAL ORIENTATION — The familiarization process which results in the Trainee being able to perform within a given environment to his fullest capacity.

GENERAL ORIENTATION — The familiarization process which provides the Trainee with an overview of a given environment.

INDIRECT SOUND—A sound which reaches the listener's ears after it has traveled around, through, over or under an obstacle.

KINESTHETIC SENSE—The internal sense of position, movement, and tension as perceived through the nerve end organs in the muscle, tendons, and joints.

LANDMARK—Any familiar object or sensory cue which is easily recognized and has a definite fixed location in the environment.

LEISURE TIME INSTRUCTION—A course taught at the Guild designed to assist the Trainee in obtaining the skill and knowledge necessary for the enjoyment of his leisure time. Through a variety of passive and active recreational activities, the Trainee learns that blindness need not interfere with his ability to relax alone, or to participate in activities with family or friends.

MASKING—Disguising, concealing, or interfering with the perception of sensory stimuli.

MEDIUM BUSINESS DISTRICT—An area which has a concentration of business establishments, sidewalks and moderate vehicular and pedestrian traffic. Usually having both light and stop-sign controlled intersections within a city of moderate size.

MOBILITY—A course taught at the Guild which provides the Trainee with the intensive training necessary to develop skill, confidence, and grace in traveling independently to the greatest degree possible.

MOBILITY ASSISTANT—Volunteers at the Guild who have had a minimum of thirty hours of training and observations. Their main responsibilities are to actively orient the Trainees to areas in the environment which are specified by the mobility specialists.

OBJECTIVES—In the context of the Suggested Learning Experiences and Procedures/and Suggested Experiences for Further Evaluation, a specific place or location to be traveled, to recognized and identified by the Trainee.

OLFACTORY SENSE—The sense of smell.

ORIENTATION—The process of utilizing sensory intake to establish one's position in the environment.

ORIENTATION AND MOBILITY SEMINAR—A course taught at the Guild in which groups of Trainees meet under the supervision of mobility specialists. General information is presented concerning orientation and mobility aids and devices. Trainees are also afforded the opportunity to discuss and evaluate their common travel problems.

PITCH AND CROWN—The effect which is achieved when a road surface is raised at the center-line (crown) and slopes downward near its parallel curb lines (pitch).

POSITION—One's relative location within the crosswalk area at the corner on which he is standing.

PRESCRIPTION CANE—A cane whose length has been determined by an individual's stride, height, width and speed of gait so that when used in the proper manner it detects obstacles and drop-offs, one and one-half steps in front of the user.

PROPERTY LINE—A term used to define the demarcation between the edge of a public sidewalk and adjacent real estate.

REFLECTED SOUND—A sound which is heard when a direct sound reflects from an obstacle, and then reaches the listener's ear.

RESIDENTIAL AREA—An area in which there are public sidewalks and intersections which are predominately stop-sign controlled. An area basically restricted to private homes and apartment dwellings with a few small business establishments.

RESIDENTIAL/SUBURBAN NON-SIDEWALK AREA—An area in the outlying part of a city or town in which there are no sidewalks, and where most intersections are stop-sign or non-controlled. Generally thought of as plan developments.

RURAL NON-SIDEWALK AREA—A country area in which there are no sidewalks, and the intersections are stop-sign or non-controlled. An area void of business establishments with the exception of a farm market, occasional gas station or general store.

SENSORY CUES—Any sound, odor, visual, temperature or tactual stimulus that can be utilized in determining information regarding the environment.

SENSORY TRAINING—A course taught at the Guild with sequential procedures designed to maximize the use of all the senses. These procedures enable the Trainee to develop self-confidence, deal with daily skills and activities, and become better oriented to the environment.

SHORELINE—A specific cane technique. It is also interchangeable with property line and can be further defined as any tactually discernible differences between a travel surface one is walking on, from that which is beside the traveler.

SHOULDER—See "berm."

SMALL BUSINESS DISTRICTS—An area which has a concentration of business establishments, sidewalks and moderate vehicular and little pedestrian traffic. Usually having stop-sign controlled intersections and few light controlled intersections within a town or village.

SOUND DISCRIMINATION—The ability to perceive, recognize, identify, and isolate a difference between two or more similar sounds.

SOUND LOCALIZATION—The ability to determine where a sound is coming from (direction), and how far away it is (distance).

SOUND SELECTIVITY—The ability to perceive, recognize, identify, and isolate a difference between two or more dissimilar sounds.

SOUND TRACING—The ability to mentally and/or physically follow the general direction of a moving sound.

SPATIAL AWARENESS—The ability to make a mental map of surroundings and place oneself within the map while stationary and moving.

SPOKEN COMMUNICATION—A course taught at the Guild designed to assist the Trainee to interact with effectiveness. It enables a blind person to develop ease in conversation with others, and to have poise and self-confidence in various types of interpersonal settings.

SQUARE-OFF—To align the body in relation to an object for the purpose of establishing a straight line of direction, and a definite position in the environment.

TACTUAL DISCRIMINATION—The ability to perceive, recognize, identify, and isolate a difference between two or more similar textures or shapes.

TACTUAL SELECTIVITY—The ability to perceive recognize, identify, and isolate a difference between two or more dissimilar textures or shapes.

TACTUAL SENSE—The sense of touch.

TECHNIQUES OF DAILY LIVING—A course taught at the Guild designed to enable a blind person to be independent in caring for his personal needs, and certain activities which he would encounter in everyday situations. Emphasis is placed on acquiring poise and confidence in eating, personal grooming, shopping, marketing, and other types of community experiences.

THERMAL SENSE—The aspect of the tactual sense which enables one to perceive degrees of warmth and coolness.

TIME ESTIMATION—A function in the central sense which is supplied by information gathered by all the senses, except taste, to determine relationships of time to space or distance.

TRAINEE—A blind individual enrolled in the Personal Adjustment Training Program at The Greater Pittsburgh Guild for the Blind.

VEER—An unintentional change in one's direction of travel.

VISUALIZATION—A course taught at the Guild which encourages the blind individual to visualize his present surroundings as fully as possible. By various techniques, drills, and exercises the Trainee's visual memory is stimulated to respond visually, accurately, and continuously to all sensory stimuli coming from the environment.

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